Wood Panel Products Competency Standards

Description

This unit describes the work required to obtain and cut panels, to monitor the flow of production and to stack panels in preparation for transport.

1 Prepare for cutting

1) Occupational health and safety regulations, policies and precautions are followed.
2) Job requirements regarding quantities and sizes are obtained from supervisor or order.
3) Panels suitable for cutting to size required are obtained from pre-selected order requirements or identified with supervisor's guidance.
4) Start-up checks are completed for saw(s) nominated by supervisor to organisation standard procedures.
5) Type of panels is visually identified.
6) Panel cutting patterns and saw set-up sequences are planned with supervisor's guidance.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Cut panels to size

1) Occupational health and safety regulations, policies and precautions are followed.
2) Planned cutting sequence and patterns are followed.
3) Cutting lengths are identified and prepared by setting stops on equipment using tape or scale.
4) First panel cut after set-up is checked for length, width, quality of trim, and squareness to organisation or other tolerances and adjustments made to setting stops as required.
5) Cuts are made to sizes and quantities.
6) Panels with defects or incorrect cuts are identified and referred to supervisor for decision.
7) Off-cuts are directed for waste or recovery.
8) Processing faults in materials are identified and reported to supervisor.
9) Condition of sawn edge is regularly monitored against organisational standards for finish.
10) Machine faults are reported to supervisor in accordance with organisation standard procedures.
11) Required records are completed in accordance with organisational procedures.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Monitor condition of saw blades and take appropriate action

1) Occupational health and safety regulations, policies and precautions are followed.
2) Characteristics of blunt and damaged saw are recognised.
3) Saw blade change is requested in accordance with organisation standard procedures.
4) Area around saw is regularly cleaned in accordance with organisation standard procedures.
5) Routine sawing problems are identified, investigated and resolved in accordance with organisational guidelines and procedures.
6) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisational guidelines and standards.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Stack and identify panels

1) Occupational health and safety regulations, policies and precautions are followed.
2) Cut panels are stacked for transport with each order separate in accordance with organisation requirements.
3) Panels of common size and thickness are stacked together.
4) Panels or stacks are marked in accordance with organisation requirements.
5) Stacks are transferred or movement requested to maintain safe and efficient working area.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Panels are cut with rectangular sides
- Cutting lengths are determined by fixed stops, guides or setting markers
- Cutting equipment includes: saws with one blade or multi-blades, all manually operated docking and trimming saw types where cutting angle is controlled relative to panel guides and clamps
- Visual identification will cover: panel type including laminated veneer, plywood, chip board, fibreboard and medium density fibreboard, panel treatment and coating, thickness and number of plies when applicable grading standards, visual defects, cutting requirements
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding, organisational and environmental policies.

Evidence Guide

Underpinning Skills

- Visually identify a variety of panel samples
- Cut a variety of panels to length and squareness requirements.

Underpinning Knowledge

- Cutting sequence and patterns
- Types of material and machine faults and appropriate actions
- How blunt blades are recognised
- Setups of equipment
- Industry standard thicknesses and panel types.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes identifying the products and hardware to be packed and wrapping them in preparation for transport.

1 Prepare for packing

1) Occupational health and safety regulations, policies and precautions are followed.
2) Type and quantity of products to be packed are identified from orders or supervisor's instructions.
3) Products are located and identified from other available material/products.
4) Additional hardware items and quantities to be packed are identified from orders or supervisor's instructions.
5) Requirements for packing including number of products per bundle, number of bundles and packing material are identified from orders, supervisor's instructions or organisation standards.
6) Packing materials, hardware items and equipment are obtained in accordance with organisation standard procedures.
7) Problems with availability of material or equipment are referred to supervisor.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Pack products

1) Occupational health and safety regulations, policies and precautions are followed.
2) Products not meeting customer requirements, within the scope of individual's knowledge, are identified and referred to supervisor for decision.
3) Bearers specified by supervisor are placed squarely, evenly and consistently.
4) Products are stacked and packing material and straps applied at positions identified by supervisor.
5) Additional hardware items are packed and secured to stacked products in accordance with organisation procedures.
6) Straps are tightened using hand-held equipment to a tension sufficient to prevent product slippage without risk of strap breakage.
7) Wrapping is applied to packs indicated by supervisor.
8) Wrapping is placed and finished to prevent water penetration during storage and transportation.
9) Finished packs are identified using written information or completed tags according to organisation standards, order or supervisor's instructions.
10) Production and quality records are completed in accordance with organisation requirements.
11) Problems that arise are recognised and reported to supervisor.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Products packed will be of one or more type(s) including pallets, bearers, crates, beams, doors and panels cut to shape
- Hardware packed covers the full range included in organisation packing for example fasteners, brackets and braces
- Equipment used may include staple gun, compressor or compressed air supply, paint spray gun and strapping equipment
- Product faults recognised include panels with defects affecting strength or appearance and construction or assembly errors
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, use of hand and air operated tools, operation of equipment and organisation safety policy.

Evidence Guide

Underpinning Skills

- Identify assembled products from information available
- Identify hardware items from information available
- Identify timber and product faults
- Pack and strap finished products
- Label packs.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology			

Description

Includes the assembly of the full range of panel sizes and sequences used by the organisation.

1 Prepare for veneer assembly

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Number of plies, thickness of veneer, outer veneer grade and panel size to be assembled are determined from schedules, orders or supervisor's instructions.
3) Pre-cut long-grain veneer is identified and obtained from supervisor's instructions.
4) Equipment is assembled to transport veneer in accordance with organisation requirements.
5) Assembly area is set up with supervisor's assistance to optimise assembly process.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-ordination.

2 Assemble veneer in sequence

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Supply of veneer is co-ordinated with other personnel to minimise downtime.
3) Veneer is selected and assembled to produce correct ply sequence.
4) Veneer not meeting requirements – within the operator's grading capability – is identified and removed from assembly area.
5) Completed assemblies are transferred for further assembly in accordance with organisation requirements.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-ordination.

Range of Variables

- Ply assembled includes full range of panel sizes, number of plies and assembly sequences used by the organisation
- Assembly requirements include use of higher grade veneer on surface(s)
- Occupational health and safety requirements include manual handling, use of protective equipment and organisation safety policy.

Evidence Guide

Underpinning Skills

- Recognise veneer grade, thickness and cut
- Assemble veneer correctly
- Co-ordinate assembly with other production areas.

Underpinning Knowledge

- Occupational health and safety and environmental requirements for veneer assembly
- Characteristics of veneer which does not meet requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

This unit describes the work required to prepare and peel an range of veneer thicknesses using a specialised peeling lathe.

1 Prepare for peeling

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Peeling requirements are identified from schedules or supervisor's instructions.
3) Logs to be peeled are identified from supervisor's instructions or material loaded.
4) Machine set-up is confirmed or minor adjustments carried out.
5) Need for major changes to set up are reported to supervisor.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Peel veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Logs are loaded onto infeed, and size and condition confirmed as acceptable for processing.
3) Drive dogs are placed to maximise available veneer.
4) Controls are operated to peel log in accordance with organisation procedures and manufacturer's instructions.
5) Logs are peeled of waste product with minimal loss of time.
6) Useable veneer peeling process is initiated to optimise veneer recovery and grading process.
7) Machine speed and controls are continually adjusted to suit wood characteristics and peeling process.
8) Log support is introduced to maintain thickness variation within organisation tolerances.
9) Core of log is discarded at minimum size or when peel quality is unacceptable.
10) Equipment adjustments are made to maintain production output and finish quality in accordance with supervisor's instructions.
11) Area around lathe is regularly cleared of chips and dust.
12) Routine problems are investigated and resolved.
13) Maintenance requirements are identified and reported in accordance with workplace procedures.
14) Production and quality records are maintained in accordance with organisation requirements.
15) Characteristics of blunt or damaged blade are recognised and reported to supervisor.
16) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Logs peeled will cover the full range of log species, size, quality and moisture content normally used by the organisation
- Equipment used is specialised peeling lathe
- Thickness of veneer will cover the full range produced by the organisation
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine guards and organisation safety policy.

Evidence Guide

Underpinning Skills

- Peel full range of logs
- Maximise recovery quantity consistent with veneer quality
- Assess veneer for peeling faults
- Adjust equipment to required settings.

Underpinning Knowledge

- Methods for recognising blunt blades
- Required machine adjustments
- Standard veneer grades, and thicknesses.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology			

Description

Includes treatment of the full range of board types and chemical systems used by the organisation.

1 Prepare and feed treatment material

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements are identified from schedule or supervisor's instructions.
3) Treatment materials are prepared to organisation requirements and supervisor's instructions.
4) Preparation equipment is used and maintained in accordance with organisation procedures.
5) Pre-start checks are completed and spray equipment is started in accordance with organisation standard procedures.
6) Spray booms are set for additives as required by product specifications.
7) Start of spraying is co-ordinated with other line operators.
8) Production records are completed as required by organisation procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Monitor and control treatment process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Additive flow rates are monitored and adjustments made as required.
3) Spray operations are regularly checked.
4) Blockages are cleared and filters cleaned to maintain spray coverage to specifications.
5) Area around lathe is regularly cleared of chips and dust.
6) Routine problems are investigated and resolved.
7) Production and quality records are maintained in accordance with organisation requirements.
8) Board is regularly checked for surface contamination and corrective action taken.
9) Treated board surface quality is regularly checked and faults corrected or reported.
10) Sub-standard board is segregated for supervisor's decision.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down treatment process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Shut down is co-ordinated with other line operators.
3) Pumps are turned off following organisation standard procedures.
4) Equipment is washed or flushed in accordance with organisation standard procedures.
5) Excess chemicals and flushing liquid are disposed of in accordance with organisation and statutory requirements.
6) Equipment and chemicals are stored in accordance with organisation requirements.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Surface treatment will cover the full range of chemical systems and types of board treated by the organisation typified by tempering of fibreboard
- Surface contamination may include misting from booms and oil spots
- Occupational health and safety requirements include manual handling, use of protective clothing, dealing with hazardous substances, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Set up and start spraying of chemical treatments
- Identify and trace typical surface contamination problems
- Maintain effective spraying
- Clean equipment and dispose of chemicals safely.

Underpinning Knowledge

- Line and spray operating systems.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams	•		
Using mathematical ideas and techniques		•	
Solving Problems		•	
Using technology		•	

Description

This describes the work required to paint panels using a range of processes including roller coating, curtain coating, and spray booths.

1 Start and operate coating line

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements are identified from supervisor's instructions or production schedules.
3) Painting equipment is checked, prepared, and started according to organisation standard procedures.
4) Trays, overflow trays and thinner reservoir are positioned as required to organisation specifications.
5) Checks are made to ensure that viscosity, film thickness, and film wetness are within organisational and operational guidelines.
6) Painted product is checked for surface integrity and appropriate adjustments made to equipment settings in accordance with organisational procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Load and unload painting operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Products are loaded in accordance with organisation standard procedures for position, orientation and separation.
3) Faulty and contaminated products – within the scope of the operator's knowledge – are identified and removed and returned to supervisor or other operators as required.
4) Products are received from outfeed and surface tack regularly checked against organisation standards.
5) Products are graded, when required, to organisation standards.
6) Paint problems and equipment faults are reported to supervisor promptly and fully
7) Production and quality records are completed in accordance with organisation standards.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down paint line

1) Occupational health and safety regulations, policies and precautions are followed.
2) Painting equipment is shut down according to organisation standard procedures.
3) Level of paint in reservoirs is reduced to shut-down level.
4) Pump is switched off, according to organisation standard procedures.
5) Thinners are added to reservoir, according to organisation standard procedures.
6) Rollers and trays are removed and cleaned in accordance with organisation requirements.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment will be one of a roller coating line, spray booths, curtain coating line or similar process
- Unpainted products are checked for dust contamination, water spots and base product faults
- Surface integrity includes: viscosity, wet film, thickness
- Painted products are inspected for paint defects, contamination and coating defects
- Paint surface is checked for incomplete cover, solvent boil, base product faults, contamination, orange peel water based paint faults and coating defects
- Occupational health and safety requirements include manual handling, protective clothing, safety equipment, elimination of hazards, machine isolation, machine guarding and use of inflammable material
- Output requirements may include use of a stacker.

Evidence Guide

Underpinning Skills

- Inspect, grade and handle painted products to requirements
- Start, adjust and shut down painting equipment
- Safely handle and mix paints and thinners.

Underpinning Knowledge

- Typical product and paint defects which require action to be taken.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

This unit describes the work required to assess chips, set-up the equipment, and produce wood fibre whilst monitoring and maintaining the flow of the operation.

1 Start up and shut down defibrator system

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Machine start-up checks are carried out to organisation standard procedures.
3) Chips are assessed and appropriate system set-up determined.
4) Defibrator system is started following organisation standard procedures.
5) Machines and feed systems are adjusted to produce fibre size to match organisation requirements.
6) Availability of sufficient bins to meet job requirements is ensured.
7) Defibrator system is shut down following organisation standard procedure.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Produce fibre

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Equipment is operated to produce fibre to in accordance with organisation procedures and manufacturer's instructions.
3) Checks are regularly made to ensure fibre conforms to organisation requirements and necessary adjustments made.
4) Chip flow and pulp outfeed are monitored to ensure optimal production rate.
5) Blockages are regularly cleared using organisation procedures.
6) Output is directed to storage bins in accordance with standard usage and fill levels.
7) Faults requiring emergency shut-down are detected and appropriate action taken.
8) Equipment faults are reported to supervisor or maintenance personnel promptly and fully.
9) Cleaning procedures which prevent debris build up are regularly carried out in accordance with organisation requirements.
10) Production and quality records are kept in accordance with organisation standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Chip assessment covers species, size, moisture content and contamination
- System parts to be monitored may include filters, filtrate, white water, stock level, fibre consistency, feed level, steam flow, raw water, noise, metal detectors and power consumption
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment, machine guarding and organisation safety policy

Evidence Guide

Underpinning Skills

- Set up and shut down operating system
- Assess quality of chips
- Assess quality of fibre produced
- Respond to problems and take corrective action.

Underpinning Knowledge

- Operating system and procedures

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology		•	

Description

This unit describes the work required to prepare for and conduct the forming process, whilst monitoring the flow of the operation.

1 Prepare for forming

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements are identified from supervisor's instructions or production schedules.
3) Pre-operational checks of former are conducted in accordance with manufacturer's recommendations and plant operating procedures.
4) Spreader stations are adjusted to provide material delivery in accordance with required board cross-section distribution.
5) Size changes and line speeds are planned to meet organisational guidelines.
6) Setting of mat slitter/saw is checked and adjusted to organisation standard procedure.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Form board mat

1) Occupational health and safety regulations, policies and precautions are followed.
2) Mat sizes are identified from instructions or operational guidelines.
3) Former and forming line are brought to operating condition according to organisation standard procedure.
4) Former and forming line are started according to organisation standard procedure.
5) Size changes are co-ordinated to minimise loss of time or material.
6) System is operated manually or automatically to produce mat in accordance with organisation standard procedures and manufacturer's instructions.
7) Mat is monitored in accordance with organisation standard procedures.
8) Pressed board is regularly assessed to organisation standard requirements.
9) Stock tanks are maintained at the correct levels to organisation standard requirements.
10) Changes in machine functioning are responded to and relevant operation adjusted accordingly.
11) Potential and actual forming problems are identified and reported to supervisor or other relevant personnel.
12) Work area is regularly cleared of spillage.
13) Production and quality records are kept in accordance with organisation standard procedures.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down equipment

1) Occupational health and safety regulations, policies and precautions are followed.
2) Material is cleared from conveyor prior to shut down in accordance with organisation requirements.
3) Shut down procedure is completed to organisation standards and manufacturer's instructions.
4) Routine post-operational checks are completed to organisation requirements.
5) Area around conveyors and forming stations is cleared of material spillage.
6) Equipment faults are recognised and reported to supervisor or maintenance personnel.
7) Former is cleaned out internally and externally before maintenance and annual shuts in accordance with organisational standards.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Monitoring of operation may include slitters/saws, screens, stock, temperature and mat weight/thickness and mat appearance
- Assessment of pressed board includes surface finish, thickness, thickness variation and chip/fibre distribution in cross-section
- Occupational health and safety requirements include: housekeeping, incident reporting, protective clothing, manual handling, isolation procedures and enterprise safety and environmental policies.

Evidence Guide

Underpinning Skills

- Set up and shut down operating system
- Set up and shut down forming line, including product changes and calculating forming line speeds
- Assess quality of formed mat and dispose of faulty mats according to enterprise standards
- Assess quality of pressed board
- Respond to problems and take corrective action
- Match forming line to forming requirements as per enterprise standard procedures
- Meet required occupational health and safety, environmental and housekeeping standards.
- Operate forming line in both manual and automatic modes.

Underpinning Knowledge

- Operating system and procedures
- Fibre/chip types and sizes
- Forming station capabilities
- Occupational health and safety and environmental standards required
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving Problems			
Using technology		•	

FPI WPP 307 A Grade, sort and mark material in a production process

Description

Includes the evaluation of material characteristics and defects and determination of final grades for peeled veneer or any manufactured board type.

1 Evaluate material characteristics and defects

1) Occupational health and safety regulations, policies and precautions are followed.
2) Specific grade requirements are determined from orders or supervisor's instructions.
3) Material requirements for special products are identified.
4) Board or veneer requirements for subsequent processing operations are identified.
5) Material characteristics and defects of individual panels are evaluated against appropriate rules for grade type and other requirements.
6) Defects are clearly marked for docking or other recovery processes according to organisation standards.
7) Panels are directed to subsequent operations according to size, characteristics and defects identified.
8) Defects caused by previous operations are identified and promptly reported to the relevant personnel.
9) Moisture content is measured with meter and reported as necessary, when required, in accordance with organisation standard procedures.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Maintain production flow

1) Occupational health and safety policies and procedures are followed.
2) Panel sizes and processing requirements are identified from supervisor and sawing/dressing operators.
3) Optimal flow is planned with other operators to ensure minimal down-time.
4) Storage bins or trays, when required, are positioned and regularly cleared throughout the process.
5) Conveyors are regularly monitored for material flow problems.
6) Supplies of marking materials are maintained.
7) Problems and equipment faults are reported to supervisor promptly and fully.
8) Grading is conducted to organisation standards for the process.
9) Communication with other production line personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Determine final grades

1) Occupational health and safety policies and regulations are followed.
2) Grade and fault markings are recognised and correctly interpreted.
3) Panels are assessed, graded and sorted to organisation and external standards and procedures.
4) Sub-standard panels are rejected and placed in appropriate area.
5) Final grades are identified and grade markings or stickers applied in accordance with organisation procedures.
6) Panels are directed to subsequent operations according to size and grade.
7) Production and quality records are completed in accordance with organisation standards.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Material graded may be peeled veneer or any manufactured type including laminated veneer, plywood, chip board, fibreboard or medium density fibreboard
- Defects and grade levels determined will be the full range applicable to the organisation
- Assessment of material includes: splits, voids and splintered or missing edges, number and frequency of defects, requirements for grade and disposition
- Grading requirements may include strength grades and appearance grades
- Occupational health and safety requirements include protective clothing, manual handling and organisation safety policy.

Evidence Guide

Underpinning Skills

- Identify board characteristics and defects
- Mark panels appropriately
- Identify panel sizes and thicknesses
- Identify processing problems from finished panels
- Grade within organisation standards
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Routine material transfer problems and approach used to resolve them
- Industry standard sizes, thicknesses and tolerances.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving problems	•		
Using technology			

Description

Includes assessing, patching and filling both a single thickness of veneer or manufactured ply.

1 Patch veneer mechanically

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Pre-start checks are conducted to organisation standards and manufacturer's instructions.
3) Controls are set to organisation standard procedures.
4) Veneer flow is co-ordinated with other operators to ensure minimal down time.
5) Outfeed bins or trays are positioned and regularly cleared throughout process.
6) Patch strips are cut with minimal veneer wastage and fed to machine.
7) Sheets are positioned and defects patched to organisation standard procedures.
8) Patched veneer is graded to organisation and external standards.
9) Production and quality records are completed in accordance with standard procedures.
10) Work area is regularly cleared of off-cuts and waste material in accordance with organisation standards.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Fill veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Filler is mixed to organisation requirements or pre-mixed filler is obtained in required quantities.
3) Veneer is assessed in accordance with organisation standards and schedule requirements.
4) Filler is applied to voids in accordance with organisation standard procedures.
5) Splits are repaired with mending tape in accordance with organisation standard procedures.
6) Work area is regularly cleaned in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Fill ply surface voids

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Filler is mixed to organisation requirements or pre-mixed filler is obtained in required quantities.
3) Surface veneer is assessed in accordance with organisation standards and schedule requirements.
4) Filler is applied to voids in accordance with organisation standard procedures.
5) Ply is regraded in accordance with organisation standard procedures.
6) Ply is stacked to organisation standard requirements.
7) Production and quality records are completed in accordance with standard procedures.
8) Work area is regularly cleaned in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Assessment of veneer includes: splits, voids and splintered or missing edges, number and frequency of defects, requirements for grade and disposition of ply
- Filling may be completed on single thickness of veneer or manufactured ply
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Assess repair requirements
- Mix filler ingredients and maintain workable consistency.

Underpinning Knowledge

- Occupational health and safety requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems	•		
Using technology		•	

Description

Material graded may be peeled veneer or any manufactured board type. Grading is within the product range of the organisation.

1 Identify appearance requirements

1) Occupational health and safety and environmental policies and procedures are followed.
2) Knot and grain characteristics providing attractive finished appearance are identified, when applicable.
3) Characteristics, natural imperfections and damage detracting from appearance are identified.
4) Special appearance characteristics for specific production orders and processes are identified.
5) Allowable damage and imperfections for each size and thickness are identified.
6) Glue colour, surface coatings and laminated finishing materials are identified and differentiated between all available options.
7) Appearance requirements and limits for each appearance grade utilised by the organisation are identified.

2 Evaluate panels against grade requirements

1) Occupational health and safety and environmental policies and procedures are followed.
2) Specific grading requirements for a particular work function are identified from organisation standard procedures, schedules, orders or supervisor's instructions.
3) Where required and necessary, grading decisions are referred to a more experienced colleague.
4) Specific board type and grading requirements for a particular order are identified from organisation standard procedures, schedules, orders or supervisor's instructions.
5) Type and finish of all panels are identified.
6) Panels are systematically visually evaluated against all relevant grading criteria.
7) Panels which are broken, damaged or contain severe defects and which are likely to disrupt production processes are removed and redirected for scrap.
8) Panels are marked according to grade in accordance with organisation requirements.
9) Graded panels are sorted, processed or redirected according to grade decisions made.
10) Panels of a different type or finish from others being graded are set aside.
11) Defects caused by machine or process faults are recognised and reported to supervisor or relevant production personnel.
12) Any required documentation is completed in accordance with organisation procedures and standards.

Range of Variables

- Material graded may be peeled veneer or any manufactured type including laminated veneer, plywood, particle board, fibreboard or medium density fibreboard
- Grain characteristics and imperfections identified will include those required by the organisation and will typically include gum veins, loose or missing knots, rot, insect damage, splits, and grain angles
- Characteristics and imperfections identified will include those required by the organisation and will typically include dents, loose surface, lifting coatings, poor adhesion, thin or missing coatings, chipped edges, surface bubbles and pin holes
- Grading decisions by individuals will be within the limitations allowed by the organisation for specific product ranges
- Material may be graded manually or automatically at the sander, warehouse, or rawboard presses
- Occupational health and safety requirements may include housekeeping, protective clothing, manual handling isolation procedure and organisation safety/environmental policies.

Evidence Guide

Underpinning Skills

- Identify and differentiate board and surface treatment types within the range normally encountered by the organisation
- Identify desirable appearance characteristics
- Identify imperfections affecting appearance and strength within the range normally encountered by the organisation
- Identify organisation-based processing faults
- Consistently and correctly visually grade panels
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Occupational health and safety and environmental standards required
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

This unit describes the work required to evaluate the characteristics and defects of panels, to cut the panels and to monitor the flow of material. It also includes the stacking of panels in preparation for transport.

1 Plan and prepare for cutting

1) Occupational health and safety regulations, policies and precautions are followed.
2) Job requirements regarding quantities, sizes and angles are obtained from supervisor or order.
3) Panels suitable for cutting to size and angle required are obtained from pre-selected order requirements or identified from available stock.
4) Condition of panels is visually assessed.
5) Equipment to be used for cutting process is selected and start-up checks completed in accordance with organisation standard procedures.
6) Panel cutting patterns and saw set-up sequences are planned.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Cut panels to size and angle

1) Occupational health and safety regulations, policies and precautions are followed.
2) Planned cutting sequence and patterns are followed.
3) Cutting angles are set in accordance with saw manufacturer's instructions.
4) Cutting lengths are prepared by:
- ◊ marking individual panels using tape
- ◊ setting stops on equipment scales
- ◊ setting marker(s) on guides using tape.

5) First panel cut after set-up is checked for length and angle to organisation or order tolerances.
6) Cuts are made to required sizes, angles and quantities.
7) Cuts are made to remove visual defects affecting appearance or stress grade.
8) Off-cuts and rejected boards are directed for waste or recovery.
9) Processing faults in materials are identified and reported to supervisor.
10) Condition of sawn edge is regularly monitored against organisation standards for finish.
11) Machine faults are reported to supervisor in accordance with organisation standard procedures.
12) Production and quality records are completed in accordance with organisation standard procedures.
13) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain sawing process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Characteristics of blunt and damaged saw are recognised.
3) Saw blades are removed and replaced in accordance with organisation standard procedures.
4) Area around saw is regularly cleaned in accordance with organisation standard procedures.
5) Routine sawing problems are identified, investigated and resolved.
6) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Stack and identify panels

1) Occupational health and safety regulations, policies and precautions are followed.
2) Cut panels are stacked for transport with each order separate in accordance with organisation requirements.
3) Panels of common size, angles and thickness are stacked together.
4) Panels or stacks are marked in accordance with organisation requirements.
5) Stacks are transferred or movement requested to maintain safe and efficient working area.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Panels are cut with rectangular sides or other angle as detailed by special orders or requirements
- Cutting equipment includes: all manually operated docking and trimming saw types where cutting angle is controlled relative to panel guides and clamps, saws with adjustable angle, saws with one blade
- Visual assessment will cover: panel type including laminated veneer, plywood, chip board, fibreboard and medium density fibreboard, panel treatment and coating, thickness and number of plies when applicable, applicable grading standards, cutting requirements
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Visually assess a variety of panel samples
- Set up angles and lengths for cuts
- Cut variety of panels to full range of complexity in length and angle requirements
- Change saw blades.

Underpinning Knowledge

- Cutting sequence and patterns
- Types of material and machine faults and appropriate actions
- How blunt blades are recognised
- Industry standard thicknesses and panel types.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems	•		
Using technology	•		

Description

Includes set-up, operation and shut down of equipment for banding using laminate and timber edging.

1 Set up edging operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements including panels, edges and volumes are identified from orders and supervisor's instructions.
3) Edge requirements are planned and suitable material obtained.
4) Trimming/machining process is planned and appropriate knives/cutters set in accordance with supervisor's instructions and organisation standard procedures.
5) Start-up checks are carried out, to organisation standard procedure.
6) Edge banding line is set up and brought to operating condition in accordance with organisation standard procedures and equipment manufacturer's instructions.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Apply laminate edge

1) Occupational health and safety regulations, policies and precautions are followed.
2) Boards are loaded to feed chain to organisation standard requirements.
3) Laminate edge is loaded and applied to organisation standard procedures.
4) Finished edge is routinely monitored for position, bond strength and finish.
5) Processes are adjusted to maintain trim tolerances and surface finish requirements.
6) Glue application equipment is monitored and filled to maintain continuity of operation.
7) Edged boards are transferred or returned for further processing as required by schedules.
8) Characteristics of blunt and damaged trim blades are recognised.
9) Blades are changed in accordance with organisation standard procedures.
10) Routine problems are investigated and resolved.
11) Equipment faults are recognised and reported to supervisor or maintenance personnel.
12) Production and quality records are completed in accordance with organisation requirements.
13) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Apply timber edge

1) Occupational health and safety regulations, policies and precautions are followed.
2) Boards are loaded to feed chain to organisation standard requirements.
3) Timber edge is loaded, fed and applied to organisation standard procedures.
4) Cutters are adjusted to machine edge to required profile and dimensions.
5) Finished edge is routinely monitored for position, bond strength and finish.
6) Glue application equipment is monitored and filled to maintain continuity of operation.
7) Edged boards are transferred or returned for further processing as required by schedules.
8) Characteristics of blunt and damaged cutters are recognised.
9) Cutters are changed in accordance with organisation standard procedures.
10) Routine problems are investigated and resolved.
11) Equipment faults are recognised and reported to supervisor or maintenance personnel.
12) Production and quality records are completed in accordance with organisation requirements.
13) Timber edge is cut to length in accordance with organisation standard procedures.
14) Glue levels and edge banding are constantly monitored.
15) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Shut down equipment

1) Occupational health and safety regulations, policies and precautions are followed.
2) Shut down procedure is completed to organisation standards and manufacturer's instructions.
3) Blades on trimming and machining equipment are checked and changed as necessary to organisation standard procedures.
4) Equipment faults are recognised and reported to supervisor or maintenance personnel.
5) Production and quality records are maintained in accordance with standard procedures.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Standard setting up and operating procedures will include organisation standard procedures and equipment manufacturer's instructions
- Set up includes adjustments for panel size and edge type, glue application and finishing processes
- Trimming/machining includes cutting to square edge, bevel or other profile
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Band edges at optimum rate and finish quality
- Maintain gluing equipment
- Measure finished dimensions of timber edge profiles with accuracy appropriate to tolerances
- Change fixed cutters
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Typical edge defects and machining problems which require action to be taken
- Recognition methods for blunt or damaged trimmers and cutters
- Routine problem-solving approaches and demonstrating the ability to solve routine machining problems in simulated situations
- Industry standard edge profiles and terminology.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems	•		
Using technology	•		

Description

Includes the preparation of chip or fibre blends using mixers with manually controlled feed and pre-programmed mix quantities.

1 Prepare mixes

1) Occupational health and safety regulations, policies and precautions are followed.
2) Type and quantity of mixes to be prepared are determined from scheduled requirements, other production area orders and supervisor's instructions.
3) Glue and other ingredients are handled in accordance with organisation requirements, supervisor's instructions and material safety data sheets.
4) Ancillary equipment used for addition of other ingredients is operated in accordance with organisation and manufacturer's procedures.
5) Mix requirements are determined from organisation specifications.
6) Pre-start checks are completed and blender is set up and started to organisation standard procedures.
7) Glue, additive and chip/fibre levels are regularly monitored.
8) Samples of mix are regularly taken for testing in accordance with organisation standard procedures.
9) Material chutes are kept free of blockages.
10) System leakages and other problems are corrected or reported to relevant personnel.
11) Systems and components are flushed when mixing procedure is completed in accordance with organisation requirements.
12) Blender system is completely shut down, according to organisation standard procedures.
13) Production and quality records for mixed batch are completed in accordance with standard procedures.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Maintain mixing process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Equipment and components are cleaned to organisation standard procedures.
3) Faults in equipment are identified and repair requested in accordance with organisation standard procedures.
4) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Mixes will cover the range of types, recipes and mixing cycles used by the organisation
- Equipment used is: mixer with manually controlled feed from ingredient storage, mixer with pre-programmed mix quantities and cycles, transfer systems
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Prepare mixes to required specifications
- Maintain a clean and contamination-free mixing area
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- How mix requirements are established
- Requirements for transferring mixes to storage or production areas
- Organisation mix types and uses.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems			
Using technology	•		

Description

This unit describes the work required to chip or flake wood whilst monitoring conveyor operation and replacing blades in equipment as required.

1 Prepare to operate system

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) Customer/organisation requirements for waste products are identified.
3) Machinery start-up checks are carried out to organisation standards.
4) Machines and feed systems are adjusted to produce chip/flake size to match customer/organisation requirements.
5) Availability of sufficient waste bins to meet job requirements is ensured, if appropriate.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Chip/flake material

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) System is started following organisation standard procedures.
3) Checks are made to ensure wood chips/flakes conform to relevant woodchip quality specifications according to order requirements and organisation standards.
4) Conveyor operation is monitored and jams cleared to ensure free flow of waste input material.
5) System is shut down following organisation standard procedures.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Carry out routine maintenance and recording duties

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) Blade/knife condition is monitored and faulty/damaged/blunt blades/knives replaced in accordance with organisation standard procedures.
3) Machine faults are reported to supervisor or maintenance personnel promptly and fully.
4) Cleaning procedures which prevent build up of sawdust and other debris around waste system operations are carried out.
5) Records which detail chip/flake output and quality are kept in accordance with organisation stand procedures.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Material chipped/shredded/flaked may be any of the following: in log/billet form, off-cuts, and/or waste/down-grade timber or board, chips, reject board
- Equipment used is a chipper, hogger or shredder/knife-mill using a mechanised feed system
- Occupational health and safety requirements include manual handling, use of safety equipment protective clothing, elimination of dealing with hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Prepare, start up, operate and shut down waste system to organisation standard procedures
- Prepare records of chip/flake output which are clear and in accordance with organisation requirements.

Underpinning Knowledge

- Methods of monitoring blade/knife condition and recognising blunt blades/knives.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes stitching, taping, or gluing process for jointing veneer.

1 Prepare for joining veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Veneer to be joined is identified from schedule requirements, supervisor's instructions or appropriate documentation.
3) Glue, tape or other joining material is obtained as required by schedule.
4) Required mixing and/or other preparation equipment is obtained.
5) Materials are prepared according to organisation standard procedures.
6) Excess material is disposed of in accordance with relevant environmental policies and requirements.
7) Mixing equipment is cleaned in accordance with organisation standard procedures.
8) Problems are recognised and reported to supervisor or other relevant personnel.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Edge join veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Pre-start checks are conducted on edge joining equipment in accordance with organisation and machine manufacturer's requirements.
3) Machine functions and feed rate are set for optimal recovery of product.
4) Sheets are visually assessed and matched according to organisation standard procedures.
5) Sheets are clipped to provide edges to required standard.
6) Sheets are joined to organisation standard procedures.
7) Work area is regularly cleared of off-cuts and waste material in accordance with organisation requirements.
8) Production and quality records are completed in accordance with standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Assess joined veneers

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Joins are visually assessed.
3) Joined sheets which are sub-standard are re-cut or disposed of according to organisation standard procedures.
4) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Edge jointing may be done with either a stitching, tape or gluing process
- Matching will include grain, length and grade
- Join assessment will include strength, overlap, gap, veneer faults and minimum join spacing
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Join veneer so it will not tear apart
- Prepare joining materials to standards
- Maintain production at optimum rate and finish quality.

Underpinning Knowledge

- Typical routine problems encountered and adjustments required for correction
- Occupational health and safety requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems	•		
Using technology		•	

Description

This unit describes the work required to identify, grade, mark and store logs in the full range dealt with by the organisation.

1 Plan size grades and locations

1) Occupational health and safety regulations, policies and precautions are followed.
2) Logs to be graded are identified at debarking operation or from supervisor's instructions.
3) Requirements for sorting according to diameter, species and quality are identified from organisation standards or supervisor's instructions.
4) Length and diameter capacity of organisation’s peeling operation is identified.
5) Area for grading is planned, to organisation requirements.
6) Required sorting frames or storage locations are obtained and identified with standard diameter ranges and lengths.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Identify and grade logs

1) Occupational health and safety regulations, policies and precautions are followed.
2) Individual logs are assessed and moved to cutting area when necessary.
3) Cutting is planned and carried out or requested to produce optimum lengths for peeling.
4) Logs of inconsistent species are identified and segregated.
5) Faults in logs likely to affect peeling operation are recognised and logs segregated in accordance with organisation standard procedure.
6) Problems with log quality and debarking are reported to supervisor or other relevant personnel.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Mark and store logs

1) Occupational health and safety regulations, policies and precautions are followed.
2) Individual logs are assessed and moved to cutting area when necessary.
3) Cutting is planned and carried out or requested to produce optimum lengths for peeling.
4) Logs centres are located and marked on cut faces to optimise peeling recovery.
5) Logs are sorted into planned locations.
6) Material from filled storage locations or frames is moved (or movement is requested) to maintain the sorting process.
7) Records detailing material types, sizes and quantities are completed to organisation requirements.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Logs graded and sorted cover the full range which the organisation normally peels
- Assessment of logs includes species, length, diameter, retained bark, moisture content, contamination, curvature, roundness, splitting, infestation and disease
- Assessment may require the use of a measuring tape or other scale
- Optimisation of lengths incorporates peeling lathe capacity, production requirements and maximising of recovery
- Location of centres involves use of template or measuring tape and painting equipment
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards and organisation safety policy.

Evidence Guide

Underpinning Skills

- Grade and store logs to organisation standards and requirements
- Measure to an accuracy adequate to ensure that material can be consistently sorted
- Mark log centres.

Underpinning Knowledge

- Organisation peeling lathe capacity
- Planning process associated with grading and sorting logs.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

Ply assembled in this operation includes the full range of panel sizes, number of plies and assembly sequences used by the organisation.

1 Prepare for assembly

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Number of plies, thickness of veneer, outer veneer grade and panel size to be assembled are determined from schedules, orders or supervisor's instructions.
3) Pre-cut cross-grain veneer is identified and obtained from supervisor's instructions.
4) Pre-cut long-grain veneer is identified and obtained from supervisor's instructions.
5) Feed and assembly of veneer are planned with supervisor to produce required ply.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-ordination.

2 Apply glue to veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Spreader start-up checks and procedures are followed to organisation standard requirements.
3) Spreader is started to organisation standard procedures.
4) Glue feed is regularly monitored and filled to organisation standard procedures.
5) Spreaders are adjusted to ensure complete veneer coverage with minimal wastage.
6) Glue is applied to cross-grain veneer in accordance with organisation standard procedures.
7) Glue spread and tack levels are monitored and corrected in accordance with quality requirements.
8) Veneer is positioned and fed to suit planned assembly.
9) Reject veneer is identified and removed from spreader.
10) Movement of veneer is monitored and line operated to maintain acceptable delay and tack levels.
11) Contact surfaces are routinely cleaned of foreign material likely to cause contamination.
12) Production and quality records are completed in accordance with standard procedures.
13) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-ordination.

3 Prepare ply

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Supply of veneer is co-ordinated with other personnel to minimise downtime.
3) Cross-grain and long-grain veneer is selected and assembled to produce correct ply sequence.
4) Veneer is placed to minimise gaps and edge mismatch.
5) Reject veneer is identified and removed from assembly area.
6) Completed assemblies are transferred for pre-pressing in accordance with organisation requirements.
7) Assembly and transfer is co-ordinated with press operation to maintain press delays within organisation specifications.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-ordination.

Range of Variables

- Glue mix, tack levels and delay specifications may vary according to weather conditions
- Ply assembled includes full range of panel sizes, number of plies and assembly sequences used by the organisation
- Assembly requirements include use of higher grade veneer on surface(s)
- Occupational health and safety requirements include manual handling, use of safety equipment, handling of hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Start, operate and adjust glue spreader
- Recognise veneer grade, thickness and cut
- Assemble veneer correctly
- Co-ordinate assembly with other production areas.

Underpinning Knowledge

- Occupational health and safety requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems	•		
Using technology		•	

Description

This unit describes the work required to set-up, operate and shut down equipment for laminating or veneering board whilst monitoring the flow of the operation.

1 Start application process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements including panels, laminates/veneers and volumes are identified from orders and supervisor's instructions.
3) Equipment set-up is confirmed for material and size to be produced, as indicated by schedule requirements.
4) Start up checks on equipment and conveyors are completed, to applicable standards.
5) Line is brought to operating condition to organisation standard procedures.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Apply laminate/veneer

1) Occupational health and safety regulations, policies and precautions are followed.
2) Panels are loaded and fed through handling equipment in accordance with equipment operating procedures.
3) Laminate/veneer is loaded, fed and applied in accordance with equipment operating procedures.
4) Movement of panels and laminate/veneer is co-ordinated to ensure minimal downtime.
5) Glue application is monitored to ensure even and complete coverage to organisation standard procedure.
6) Heat rollers are regularly checked for creases, bubbles or other surface defects.
7) Contact surfaces are routinely cleaned of foreign material likely to cause contamination.
8) Laminate/veneer application is routinely monitored for position, adhesion, contamination and finish.
9) Processes are adjusted to maintain trim tolerances and surface finish requirements.
10) Glue application equipment is monitored and filled to maintain continuity of operation.
11) Finished panels are transferred or returned for further processing as required by schedules.
12) Characteristics of blunt and damaged trim blades/cutters are recognised where this is part of the laminating/veneering process.
13) Blades/cutters are changed in accordance with organisation standard procedures where this is part of the laminating/veneering process.
14) Routine problems are investigated and resolved.
15) Equipment faults are recognised and reported to supervisor or maintenance personnel.
16) Production and quality records are completed in accordance with organisation requirements.
17) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down equipment

1) Occupational health and safety regulations, policies and precautions are followed.
2) Shut-down procedure is completed to required operational sequence.
3) Glue equipment, rollers and handling equipment are stripped and cleaned in accordance with organisation procedures.
4) Blades/cutters on trimming and machining equipment are checked and changed as necessary to organisation standard procedures.
5) Equipment faults are recognised and reported to supervisor or maintenance personnel.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Standard setting and operating procedures will include organisation standard procedures and equipment manufacturer's instructions
- Handling equipment may include accumulators providing continuous operation
- Laminate/veneer may be supplied in sheets or continuous rolls
- Set-up confirmation includes adjustments for panel size, panel thickness, laminate/veneer type, glue application and finishing processes
- Trimming/machining includes cutting to square edge or bevel where this is part of the laminating/veneering process
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Apply laminate/veneer to panels at optimum rate and finish quality
- Maintain gluing processes
- Change blades or fixed cutters where this is part of the laminating/veneering process
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Typical operating problems which require action to be taken
- Recognition methods for blunt or damaged trimmers and cutters where this is part of the laminating/veneering process.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

Includes monitoring and maintenance of scarfing process and assessment of finished product.

1 Prepare for scarfing process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Required veneer sizes, production quantities and scarf angle are identified via orders or supervisor's instructions.
3) Available material for machining is identified from supervisor's instructions or standard organisation sizes.
4) Sequence of scarfing operations is planned where multiple passes are required.
5) Machine guides and cutter/blade angle are set up to standard organisation procedures and confirmed with supervisor.
6) Start-up checks are conducted and equipment started in accordance with organisation standards and manufacturer's instructions.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Scarf veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Veneer not meeting processing or grade requirements is identified prior to scarfing and rejected for supervisor's decision.
3) Veneer is positioned and fed through machine at rate appropriate to machine speed, machine capacity, veneer thickness and veneer condition.
4) Outfeed is co-ordinated to ensure efficient recovery of scarfed material.
5) Reject material is identified and directed for waste or recovery.
6) Area around equipment is regularly cleared of scraps, shavings and sawdust in accordance with organisation standard procedures.
7) Material scarfed is tallied and monitored against order quantity.
8) Problems and equipment faults are reported to supervisor promptly and fully.
9) Production and quality records are completed in accordance with organisation standards.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Assess scarfing conditions

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Consistency and angle of scarfing is monitored against organisation standards and adjustments made according to standard procedures.
3) Feed rate and finish are evaluated considering veneer thickness, species and moisture content.
4) Characteristics of blunt and damaged cutters/blades are recognised from processing conditions and finished product.
5) Faults in finished product are identified and associated processing problems recognised.

4 Maintain scarfing process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Machining conditions are adjusted to optimise feed rate and finish and maintain finished dimensions with supervisor's guidance.
3) Cutters/blades are removed and replaced in accordance with organisation standard procedures.
4) Cutter/blade is dressed or need for more complex maintenance is identified and reported to supervisor.
5) Routine scarfing problems are identified, investigated and resolved.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment used is for dedicated scarfing operation
- Scarf detail machined is standard for the organisation with established tolerances and procedures
- Veneer processed will cover the range of types, sizes, thicknesses and grades available in the organisation
- Faults recognised in scarfed veneer include burn marks, poor surface finish, extra cuts, excessive cutter marks, waviness and dimensional errors
- Occupational health and safety requirements include protective clothing, manual handling, elimination of hazards, operation and isolation of equipment, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Set up relevant equipment
- Produce products at optimum rate and finish quality
- Measure finished dimensions of scarf
- Identify faults and defects in veneer and scarf
- Change fixed cutters or blades
- Dress simple cutters or blades
- Solve routine machining problems in simulated situations.

Underpinning Knowledge

- Typical veneer and scarf defects and machining problems which require action to be taken
- Recognition methods for blunt or damaged cutters/blades
- Routine problem-solving approaches.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems	•		
Using technology		•	

Description

Includes monitoring and maintenance of clipping process and sorting or clipped veneer.

1 Prepare for clipping

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Job requirement for grade standards, veneer thickness, length and width are obtained from supervisor, order or organisation standards.
3) Veneer to be clipped is identified from supervisor's instructions.
4) Start-up checks on clipper are completed to organisation standard procedures.
5) Stops or guides are set with supervisor's assistance when standard clip width is required.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Clip defects from veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Individual veneer is visually assessed for defects and clipping pattern identified to maximise recovery.
3) Veneer is positioned and clipped to required sizes.
4) Veneer is clipped to remove broken, split or uneven edges.
5) Veneer is clipped to required grade.
6) Clipper and surrounding area is regularly cleared of off-cuts to organisation requirements.
7) Machine faults are reported to supervisor in accordance with organisation standard procedure.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Sort clipped veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Clipped veneer is sorted for grade, width, length and thickness to job requirements.
3) Veneer is moved to appropriate storage areas, or movement requested to maintain an effective working area.
4) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Clip width may be set either manually or against set stops or guides
- Assessment of veneer covers all dimensions, edge condition, position and size of knots and other defects
- Assessment of veneer may require use of measuring tape and dial gauge
- Machine faults include cutting blade damage or blunt blade producing defects on clipped edge
- Occupational health and safety requirements may include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Visually assess for a variety of veneer samples
- Clip pattens for variety of veneer samples
- Clip variety of veneer to requirements
- Maintain a clean and effective working area.

Underpinning Knowledge

- Clipping pattens for variety of veneer samples
- Methods of identifying blunt or damaged blades.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems	•		
Using technology		•	

Description

Includes set-up and operation of machine for hole punching whilst monitoring and correcting the flow of material.

1 Set up operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Product requirements are determined from supervisor, orders or organisation standards.
3) Start-up checks are conducted and completed according to organisation standard procedure.
4) Machine is set according to determined product requirements.
5) Initial panel is fed and punched in accordance with organisation procedures and machine manufacturer's instructions.
6) Panel is assessed and machine adjusted as required, to organisation standard procedure.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Punch pegs

1) Occupational health and safety regulations, policies and precautions are followed.
2) Panels to be processed are brought to infeed.
3) Panels are fed into punch at a rate which ensures optimal efficiency.
4) Punched panels are fed from outfeed to stacker.
5) Panels at stacker are monitored for quality and problems reported to supervisor or other relevant personnel.
6) Sub-standard product is disposed of according to organisation standard procedure.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Monitor and correct processing

1) Occupational health and safety regulations, policies and precautions are followed.
2) Material flow rate is regularly monitored.
3) Minor flow problems are identified and corrected.
4) Finished panels are transferred or movement is requested to maintain effective production.
5) Major problems and equipment faults are reported to supervisor promptly and fully.
6) Area around punch is regularly cleared in accordance with organisation standard procedure.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Problems may include incorrect margins, incorrect patterns and/or doglegs and broken punches
- Occupational health and safety requirements include manual handling, use of safety equipment, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Visually assess quality of punching
- Comply with occupational health and safety regulations.

Underpinning Knowledge

- Machine operation and potential machine faults and appropriate actions
- Methods of determining product requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

This unit describes the work required to prepare and set-up the equipment and shift material whilst monitoring the process.

1 Prepare equipment and work area

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) External inspection and pre-operational checks are completed on conveyor system in accordance with manufacturer's instructions and organisation standards.
3) Hazards and obstructions are identified and cleared to ensure smooth and efficient operation.
4) Nearby personnel are notified of impending operation.
5) Equipment is started in accordance with manufacturer's instructions.
6) Equipment is checked for abnormal noise and operation.
7) Equipment not operating correctly is shut down and investigated in conjunction with appropriate personnel.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Shift material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material to be moved and loading point is confirmed from schedules, orders or supervisor's instructions.
3) Adjustments are made to loading and unloading points to enable correct material movement.
4) Material dimensions and weight are estimated to ensure conveyor is not overloaded.
5) Material is shifted using conveyor according to manufacturer and organisation procedures.
6) Process is monitored for presence of foreign material and spillage.
7) Routine operational problems are identified and resolved.
8) Equipment faults are recognised and reported to supervisor or maintenance personnel.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down conveyor

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material is cleared from conveyor prior to shut-down in accordance with organisation requirements.
3) Conveyor is shut down in accordance with manufacturer's instructions.
4) Safety locks and brakes are applied or other securing procedures followed.
5) Routine post-operational checks are completed to organisation requirements.
6) Area around conveyor is cleared of material spillage.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Material shifted may be bark, chips, off-cuts or boards.
- Occupational health and safety requirements include manual handling, use of safety equipment, machine guarding, operating of equipment and organisation safety policy.

Evidence Guide

Underpinning Skills

- Apply operating procedures that prevent damage to equipment
- Control material movement
- Interpret orders and instructions for movement of a typical range of material for the organisation
- Minimise disruptions to associated operations
- Solve routine material transfer problems in simulated situations.

Underpinning Knowledge

- Routine problem-solving approaches.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

Includes assessing logs for diameter, species, faults and moisture content and monitoring debarking operation for faults.

1 Set up processing of logs

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Logs to be debarked are identified from supervisor's instruction or material loaded.
3) Debarking equipment is set up and adjusted to optimise debarking rate and quality and to produce acceptable bark chip characteristics.
4) Pre-operational checks are conducted.
5) Storage locations for each diameter range and length are selected and programmed where automated sorting equipment is incorporated in the outfeed system.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Debark logs

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Log is loaded on to infeed and size and condition confirmed as acceptable for processing.
3) Conveyors and debarking equipment are operated to remove bark according to standard procedures.
4) Feed and de-barker operation is adjusted to suit moisture content and species where appropriate.
5) Debarked logs are regularly assessed for material removal and surface finish
6) Equipment adjustments are made to maintain finish quality.
7) Characteristics of blunt and damaged blades/knives are recognised and problems reported to supervisor.
8) Bark condition is monitored.
9) Debarked logs are directed to sorting operation or storage.
10) Production and quality records are completed in accordance with organisation standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain production flow

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Supply of logs is co-ordinated with supervisor or log yard personnel.
3) De-barker is operated at a rate which optimises machine performance and maintains flow of debarked logs to down-stream processes.
4) Debarking problems relating to equipment or to specific logs are identified, and remedial action taken or supervisor advised.
5) Surplus debarked logs and bark are removed (or removal requested) to prevent interruption to debarking operation.
6) Problems with transfer of logs and bark are investigated and resolved.
7) Conveyors are monitored for optimum material flow.
8) Area around de-barker is regularly cleared of bark and dust.
9) Equipment faults are reported to supervisor or maintenance personnel promptly and fully.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Assessment covers diameter range, curvature, faults, species and moisture content
- Debarking equipment may include an automated diameter and length sorting system
- Occupational health and safety requirements include manual handling, protective clothing, elimination/management of hazards (including machine guarding) and organisation safety policy.

Evidence Guide

Underpinning Skills

- Debark full range of logs sizes and species the organisation will debark
- Identify and segregate logs on the basis of size, defects and species across the full range of features the organisation will debark – for those organisations with sorting systems off the de-barker
- Evaluate and set up de-barker for the full range of diameters, lengths, species and moisture content that the operator will encounter
- Troubleshoot and resolve problems associated with debarking conditions
- Record production data.

Underpinning Knowledge

- Industry standard diameter ranges and length dimensions
- Requirements for bark removal and surface finish
- Methods for recognising blunt/damaged blade/knife
- Requirements for chip size of bark removed, if appropriate.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

This unit describes the work required to evaluate characteristics and defects of veneer panels, to cut veneer, and to monitor the flow of material.

1 Evaluate veneer characteristics and defects

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Specific grade and panel size requirements are determined from orders or supervisor's instructions.
3) Special processing requirements are identified from supervisor and peeling operators.
4) Requirements for special products are identified.
5) Veneer requirements for subsequent processing operations are identified.
6) Characteristics and defects of individual panels are evaluated against appropriate rules for grade type and other requirements.
7) Defects caused by previous operations are identified and promptly reported to the relevant personnel.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Evaluate and cut veneer sheets

1) Occupational health and safety regulations and procedures are followed.
2) Cutting procedures and thickness changes are planned with other operators to ensure minimal downtime.
3) Conveyor and guillotine operation are co-ordinated with peeling operation to minimise downtime.
4) Veneer is visually assessed at production rate.
5) Optimal cutting positions are selected to minimise defects and maximise full width sheets.
6) Guillotine is operated to cut veneer in accordance with organisation standard procedures.
7) Off-cuts and scrap are directed for chipping.
8) Conveyors are regularly monitored for material flow problems.
9) Characteristics of guillotine blade bluntness or damage are identified and reported to supervisor.
10) Problems and equipment faults are reported to supervisor promptly and fully.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Characteristics and defects include moisture content, wane, splits and knots
- Cutting will cover the range of timber species, characteristics and quality levels which the organisation peels
- Peeling rates handled will include the maximum produced from the organisation lathe(s)
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Identify veneer characteristics and defects
- Visually assess veneer at full production rate
- Recognise guillotine blade faults
- Identify processing problems from veneer
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Routine material transfer problems and approach used to resolve them
- Varying veneer characteristics through log
- Standard operating procedures.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems	•		
Using technology		•	

Description

This unit describes the work required to deal with incoming goods, dispatch goods and controlling store stock.

1 Deal with incoming goods

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Delivery address and order for goods is verified before unloading.
3) Unexpected or possibly incorrect deliveries are referred to supervisor or other authoritative personnel.
4) Requirements for weather protection and special handling requirements are noted and complied with.
5) Incoming goods are unloaded from trucks with minimal delays.
6) Simultaneous deliveries are dealt with equitably.
7) Actual delivery type and quantity are verified against documentation.
8) Goods are relocated in accordance with organisation requirements and systems.
9) Goods received are recorded and appropriate documentation completed.
10) Problems with goods or documentation are reported to supervisor in accordance with organisation requirements.
11) Appropriate personnel are notified of urgent, special or personally directed deliveries.
12) Communication with supervisor and other personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Deal with dispatch goods

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Delivery advice notes or other relevant dispatch documents are read and interpreted.
3) Verbally advised delivery requirements are verified with supervisor or other authorising personnel.
4) Priority deliveries are identified.
5) Dispatch requirements are planned taking account of timing requirements, size and quantity of deliveries, destinations and available transport options.
6) Delivery documentation is prepared.
7) Special delivery requirements are noted.
8) Packaging and addressing of goods is completed or checked.
9) Goods for dispatch are recorded and appropriate documentation completed.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Control store stock

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Stock is stored to organisation standard procedures.
3) Stock is issued against required documentation.
4) Stock levels are checked and recorded in accordance with organisation requirements and systems.
5) Shortfalls are noted and reported to relevant personnel.
6) Stock movement records are maintained.
7) Stock level information is provided to production scheduling or stock ordered in accordance with organisation systems.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Orders include routine and specifically documented requirements
- Goods cover organisation production requirements, manufactured product and special items for maintenance or administrative use
- Unloading and relocation of goods may require co-ordination with personnel driving appropriate load shifting equipment
- Stock checking may include cyclic and periodic stock-taking requirements
- Transport may be organisation-based or externally provided
- Stock movement record may include movement records from production areas, packing stations and dispatch locations
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards and organisation safety policy.

Evidence Guide

Underpinning Skills

- Move or organise movement of all incoming or dispatch goods
- Accurately determine stock levels and shortfalls
- Complete all required documentation.

Underpinning Knowledge

- Relevant organisation systems.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information	•		
Planning and organising activities			
Working with others in teams	•		
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

This unit describes the work required to plan the job and select the equipment in addition to ensuring the load is safely transferred.

1 Plan work

1) Potential hazards associated with the use of cranes and other load-moving equipment are identified and measures to eliminate or control these hazards are planned.
2) Mass and dimensions of the load are determined or confirmed.
3) Organisation load sheets are interpreted to determine slinging sequences and loading sequences where applicable.
4) Co-ordination requirements with other personnel during load movement are determined.
5) Appropriate slinging equipment is identified in accordance with recognised timber-slinging procedures and organisation procedures.
6) Job plan is developed to include hazard prevention/control measures and meet applicable Australian Standards, codes of practice and mill/organisation operational procedures.

2 Select and inspect slings

1) Appropriate lifting gear is inspected and damaged or worn items are labelled and rejected.
2) Sets of lifting gear are selected and assembled to Australian Standards and codes of practice where applicable.
3) Rejected lifting gear is repaired or sent for repair.
4) Records of inspection or repair are maintained as required by mill/organisation procedures.
5) Safe working load is calculated to Australian Standards where appropriate.

3 Sling and direct loads

1) Load moving is performed in accordance with planned hazard prevention and control measures, to acceptable safe work practices, appropriate Australian Standards, codes of practice and guides.
2) Lifting gear is connected to load and movement device in accordance with manufacturer's specifications, guides and Australian Standards as appropriate.
3) Appropriate communications and signal methods are used to co-ordinate the load movement.
4) Load is moved with due regard for load centre of gravity, access, obstacles, wind conditions and final resting position.
5) Stability of the load is ensured throughout the load movement.
6) Lifting gear is disconnected safely and without damage to load and gear.

Range of Variables

- Signals may cover the following movements associated with equipment operated in the workplace: stop, raise, lower, slew – left and right, luff – boom up and down, extend boom, retract boom.

Evidence Guide

Underpinning Skills

- Apply current state/territory occupational health and safety legislation, standards and codes of practice
- Apply the hierarchy of hazard-control measures
- Select, inspect and assemble lifting gear across range of equipment.

Underpinning Knowledge

- Current state/territory occupational health and safety legislation, standards and codes of practice
- The hierarchy of hazard-control measures
- Common timber load characteristics, and load-moving equipment characteristics.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information	•		
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology			

Description

Includes preparing and selecting material and stacking and packing boards to meet customer orders.

1 Select and prepare material for orders

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Customer orders are read and appropriate sizes and symbols identified.
3) Board to match order and material selected by supervisor is identified by visual estimate or with the aid of a measuring tape.
4) Order fill sequence is planned to facilitate docking and packing requirements.
5) Board is taken from storage racks to order assembly point with minimum movement and delays.
6) Panels not meeting quality or grade requirements are identified and rejected for supervisor's decision.
7) Possible shortfalls and other order problems are identified and referred to supervisor.
8) Required cutting is carried out or requested in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workplace co-ordination and personnel co-operation.

2 Stack order material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Number and size of packs to complete order is planned.
3) Board is stacked with largest sizes at base to ensure stability.
4) Panels are placed and packs constructed to meet organisation requirements for presentation.
5) Panels in completed orders are tallied.
6) Packs are strapped and wrapped in accordance with organisation standards and specific order requirements.
7) Packing records are completed in accordance with organisation procedures.
8) Communication with supervisor and other workers is maintained to ensure efficient workplace co-ordination and personnel co-operation.

Range of Variables

- Board selected for orders will cover the full range of material normally handled by the organisation and may include laminated veneer, plywood, chip board, fibreboard and medium density fibreboard
- Panels are selected according to type, surface treatment, size, thickness, grade and appearance
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards and organisation safety policy.

Evidence Guide

Underpinning Skills

- Understand full range of orders used by organisation customers
- Identify board grading marks
- Select appropriate panels and identify shortfalls
- Pack tally panels
- Complete internal organisation documentation
- Plan packs and stack panels to organisation standards
- Maintain pack presentation to organisation standards
- Co-ordinate cutting and movement of board with other personnel.

Underpinning Knowledge

- Industry standard types, sizes, thicknesses and surface treatments.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

Including the use of simple saw benches, circular or band saws, and saws with one blade.

1 Prepare for sawing process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Required sawn board sizes and quantities are identified via orders or supervisor's instructions.
3) Available material for sawing is identified from supervisor's instructions or standard organisation sizes.
4) Sequence of cuts is planned where multiple cuts are required.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Produce boards

1) Occupational health and safety regulations, policies and precautions are followed.
2) Start-up checks are conducted and saw started in accordance with organisation standards and manufacturer's instructions.
3) Saws, carriage and feeds are adjusted to suit dimensions and cutting sequence selected.
4) Ply is positioned on infeed to cut planned sequence.
5) Saw bench is operated to produce boards without damage to sawn board or saw blade.
6) Reject boards are identified.
7) Off-cuts and rejected boards are directed for waste or recovery.
8) Infeed and outfeed systems are regularly monitored and material flow problems resolved.
9) Sawn material is tallied and monitored against order quantity.
10) Problems and equipment faults are reported to supervisor promptly and fully.
11) Production and quality records are completed in accordance with organisation standards.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain sawing conditions

1) Occupational health and safety regulations, policies and precautions are followed.
2) Sawing feed rates and finish are evaluated considering board size and ply condition.
3) Sawing conditions are adjusted to optimise feed rate and finish.
4) Cross-section dimensions of sawn boards are monitored with respect to standard sizes and tolerances and sawing process adjusted with supervisor's guidance.
5) Area around saw is regularly cleaned in accordance with organisation standards and procedures.
6) Routine sawing problems are identified, investigated and resolved.
7) Characteristics of blunt and damaged saw blade are recognised.
8) Saw blade is removed and replaced, where appropriate, or change requested in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Saw products from continuous ply - basic FPI WPP 332 A

Range of Variables

- Boards are produced by sawing continuous ply, for example, recovering a single board from one edge at each pass or splitting a larger board into two sections
- Equipment used is: simple saw benches necessitating significant manual handing to more complex handling arrangements utilising conveyor systems to transfer and position material, circular or band saws, saws with one blade
- Replacement of saw blades is required for circular saws
- Occupational health and safety requirements include protective clothing, manual handling, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Produce boards at optimum volume and finish quality while maintaining production flow
- Change circular saw blades
- Measure sawn dimensions with accuracy appropriate to tolerances
- Solve routine sawing and material transfer problems in simulated situations.

Underpinning Knowledge

- Typical ply defects and sawing problems which require action to be taken
- Recognition methods for blunt saws
- Routine problem-solving approaches
- Industry standard cross-section and length dimensions and tolerances
- Typical cutting patterns.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes the use of a full range of equipment to machine a variety of board types, plywood, and laminated veneer.

1 Prepare for machining process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Required panel sizes, quantities and machining details are identified via orders or supervisor's instructions.
3) Available material for machining is identified from supervisor's instructions or standard organisation sizes.
4) Machining processes and set-ups are selected from those normally used within organisation.
5) Sequence of machining operations is planned where multiple passes are required.
6) Machine guides and cutters are set up to standard organisation procedures and confirmed with supervisor.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Machine products

1) Occupational health and safety regulations, policies and precautions are followed.
2) Start-up checks are conducted and equipment started in accordance with organisation standards and manufacturer's instructions.
3) Speeds and feeds are adjusted to suit dimensional and finish requirements.
4) Board not meeting processing requirements is identified prior to machining and rejected for supervisor's decision.
5) Panels are machined by operating equipment in accordance with organisation and manufacturer's procedures.
6) Reject material is identified and directed for waste or recovery.
7) Handling of panels is consistent with protecting surface treatment and coatings from damage likely to cause appearance defects.
8) Conveyors are regularly monitored for material flow problems.
9) Area around equipment and conveyors is regularly cleared of scraps, shavings and sawdust in accordance with organisation standard procedures.
10) Machined products are tallied and monitored against order quantity.
11) Problems and equipment faults are reported to supervisor promptly and fully.
12) Production and quality records are completed in accordance with organisation standards.
13) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Assess machining conditions

1) Occupational health and safety regulations, policies and precautions are followed.
2) Machining feed rate and finish are evaluated considering board size, board type and other relevant characteristics according to organisation standard procedures.
3) Machined board dimensions, profiles and details are measured and recorded in accordance with organisation quality procedures.
4) Characteristics of blunt and damaged cutters are recognised from processing conditions and finished product.
5) Faults in finished product are identified and associated processing problems recognised.

4 Maintain simple machining processes

1) Occupational health and safety regulations, policies and precautions are followed.
2) Machining conditions are adjusted to optimise feed rate and finish and maintain finished dimensions with supervisor's guidance.
3) Fixed cutter heads are removed and replaced in accordance with organisation standard procedures.
4) Straight cutters are dressed in accordance with organisation standard procedures.
5) Need for more complex cutter maintenance is identified and reported to supervisor.
6) Routine machining problems are identified, investigated and resolved.
7) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisation standard procedures.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment used is one or more of the following: single or multi-head moulder, spindle moulder, single or double end tenoner, mortiser, router, borer or multi-borer, sanders, wide-belt and narrow-belt
- Products and detail machined are standard for the organisation with established tolerances and procedures
- Board machined will cover the range of types available in the organisation and may include laminated veneer, plywood, chip board, fibreboard and medium density fibreboard, with a range of surface treatments, edge treatments, sizes, thicknesses and grades
- Faults recognised in machined board include burn marks, poor surface finish, extra cuts, excessive cutter marks and dimensional errors
- Occupational health and safety requirements include protective clothing, manual handling, elimination of hazards, operation and isolation of equipment, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Produce products at optimum rate and finish quality
- Measure finished dimensions of profiles and details with accuracy appropriate to tolerances
- Change fixed cutters
- Joint simple cutters
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Typical board defects and machining problems which require action to be taken
- Recognition methods for blunt or damaged cutters
- Routine problem-solving approaches and demonstrating the ability to solve routine machining problems in simulated situations
- Industry standard cross-section and length dimensions and tolerances
- Industry standard profiles and machining terminology.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes the operation of glue mixing and ancillary equipment in rawboard and laminating.

1 Prepare resin or glue mixes

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Type and quantity of resin or glue to be prepared are determined from scheduled requirements, other production area orders and supervisor's instructions.
3) Resin or glue and ingredients are handled in accordance with organisation requirements, supervisor's instructions and material safety data sheets.
4) Mix requirements for type of resin or glue are determined from organisation specifications.
5) Availability of required quantities of all ingredients is confirmed before mix is started.
6) Measuring and mixing equipment is operated in accordance with organisation standard procedures and manufacturer's instructions.
7) Resin or glue ingredients and additives are measured and mixed ensuring minimum wastage to organisation standard procedures.
8) Excess material is disposed of in accordance with organisation standard procedures.
9) Mix is transferred to appropriate storage area or production equipment without contamination through transfer lines or with other mixes stored.
10) Samples of mix are regularly taken for testing in accordance with organisation standard procedures.
11) Production and quality records for mixed batch are completed in accordance with standard procedures.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Maintain resin or glue preparation process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Mixing, storage and transfer equipment is cleaned to organisation standard procedures.
3) Addition rate of resins/additives are monitored and pumps adjusted as required.
4) Stock usage records are completed in accordance with organisation supply system requirements.
5) Equipment faults are recognised and reported to supervisor or maintenance personnel.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Resin or glue mixed will cover the range of types, recipes and mixing cycles used by the organisation
- Equipment used is:
  - ◊ mixer with manually controlled feed from ingredient storage
  - ◊ mixer with pre-programmed mix quantities and cycles
  - ◊ transfer pumps and valves.
- Resin or glue mix requirements may vary according to weather conditions and condition of production material where resin or glue is used.
- Occupational health and safety requirements include manual handling, protective clothing, handling of hazardous materials, elimination of hazards, machine isolation and machine guarding.
- Additives may include: hardeners, dyes.

Evidence Guide

Underpinning Skills

- mix resin or glue to required specifications
- maintain a clean and contamination-free mixing area
- communicate effectively with others in associated production areas
- meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- methods of establishing mix requirements
- requirements for transferring mixed resin or glue to storage or production areas
- organisation resin or glue types and uses
- occupational health and safety and environmental standards
- relevant quality management system procedures and work instructions.

Assessment context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams	•		
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes assessing and repairing panels in the case of splits, voids, or splintered or missing edges.

1 Prepare to repair panels

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Filler is mixed to organisation requirements or pre-mixed filler is obtained in required quantities.
3) Panels are assessed for repair and/or downgrade.
4) Overlaps are cut-out.
5) Earlier processing problems are identified and reported to supervisor.
6) Work area is regularly cleaned in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Fill surface voids

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Filler is applied to voids in accordance with organisation standard procedures.
3) Panels are regraded in accordance with organisation standard procedures.
4) Production and quality records are completed in accordance with organisation standards.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Assessment of panel includes: splits, voids, splintered or missing edges, number and frequency of defects, requirements for grade and disposition of ply
- Occupational health and safety requirements include manual handling, protective clothing, elimination/management of hazards (including machine guarding) and organisation safety policy.

Evidence Guide

Underpinning Skills

- Assess repair requirements
- Mix filler ingredients and maintain workable consistency
- Identify down graded panels.

Underpinning Knowledge

- Occupational health and safety requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving Problems		•	
Using technology		•	

Description

Includes the operation of the transfer car to move treated paper or rawboard for further processing.

1 Prepare equipment, loads and work area

1) External and operational check is made of equipment in accordance with manufacturer's instructions and organisation standards.
2) Site hazards are identified and assessed to determine operating procedures in accordance with occupational health and safety requirements.
3) Nearby personnel are notified of impending operation as required.
4) Communication signals are confirmed with any assisting personnel, as required.
5) Safety procedures are followed in starting equipment.
6) Checks are made for abnormal noise and operation after equipment has been started.
7) Correct operation of controls is checked in accordance with organisation procedures.
8) Loads are prepared to meet production schedule.
9) Defective material is identified and disposed of according to organisation standards.
10) Rails and operating area are checked to determine obstructions and defects.
11) Defective equipment is reported in accordance with organisation procedures.

2 Secure and transfer loads

1) Work requirements are obtained from schedules.
2) Work is planned to maintain workflow and minimise unloaded movement.
3) Load stacking and dimensions are reviewed to ensure load stability and ease of movement to production machinery.
4) Weight of load is estimated to ensure equipment is not overloaded, as required.
5) Hazard control strategies are implemented for identified hazards.
6) Load is manoeuvred into position using all relevant movements in accordance with manufacturer's specification and organisation requirements.
7) Stability of the load is maintained at all times.
8) Equipment faults are reported to supervisor or maintenance personnel promptly and fully.
9) Signals are made and interpreted with associated persons to co-ordinate work, where necessary.
10) Work area is routinely cleaned in accordance with organisation standards.
11) Production and quality records are completed, where required, in accordance with organisation standards.
12) Communication is conducted with relevant production personnel to co-ordinate material requirements.

3 Shut down equipment

1) Equipment is shut down in accordance with manufacturer's instructions.
2) Routine post operational checks are completed to organisation requirements.
3) Safety locks, brakes and securing procedures are applied to prevent accidental transfer car movements.

Range of Variables

- Type of equipment may include: electrically powered rail mounted transfer car
- Range of warning signals used in organisation
- Records may include stock movement, downtime and defective material.

Evidence Guide

Underpinning Skills

- Safely and efficiently operate equipment over the range of loads moved in the area
- Schedule movements to maintain material flow to required timing
- Communicate effectively to co-ordinate material movements.

Underpinning Knowledge

- Organisational occupational health and safety requirements
- Movement scheduling
- Effective communication techniques associated with coordinating material movements .

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

Includes the operation/monitoring of the laminating press and ancillary equipment.

1 Start application process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Production requirements including boards, treated paper and volumes are identified from schedules.
3) Equipment is set-up for material and size to be produced, as indicated by schedule requirements.
4) Start-up checks on equipment and conveyors are completed, to applicable standards.
5) Line is brought to operating condition in accordance with organisation standard procedures.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
7) Treated paper is stored in accordance with organisational guidelines.

2 Lay up board and paper

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Boards are loaded and fed through handling equipment in accordance with equipment operating and organisation procedures.
3) Treated paper is loaded, fed and applied in accordance with equipment operating procedures.
4) Movement of boards and treated paper is co-ordinated to ensure minimal downtime.
5) Board and paper quality is monitored and defects removed as per organisation standards.
6) Board and paper layup is routinely monitored for position, adhesion, contamination.
7) Routine problems are investigated and resolved.
8) Equipment faults are recognised and reported to supervisor/team leader or maintenance personnel.
9) Production and quality records are maintained in accordance with organisation standard procedures.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Shut down equipment

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Shut-down procedure is completed to required operational sequence.
3) Equipment faults are recognised and reported to supervisor or maintenance personnel.
4) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Maintain production flow

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Equipment is monitored to ensure correct operating conditions in accordance with operating standards.
3) Quality of output is monitored in association with grader operators, and production parameters changed as appropriate.
4) Optimal flow is planned with other operators to ensure minimal downtime.
5) Conveyors are regularly monitored for material flow problems.
6) Communication with supervisor/team leader and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Standard setting and operating procedures will include organisation standard procedures and equipment manufacturer's instructions
- Schedule program requirements will include texture, colour, board dimensions, quality, item number and any special customer requirements
- Equipment set-up includes adjustments for board size, board thickness, paper type and press settings. Board and paper quality checks include damage and surface quality
- Occupational health and safety requirements include housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, operation of equipment, machine isolation, machine guarding and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Apply treated paper to boards at optimum rate and finish quality
- Adjust press conditions to achieve required cycle times
- Resolve routine operating problems
- Detect and minimise rejects
- Minimise downtime of machinery
- Communicate effectively with others in associated production areas
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Typical operating problems which require action to be taken
- Occupational health and safety and environmental standards required
- Relevant quality management system procedures and work instructions required.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes measurement of log weight and volume by estimation and by calculation as well as recording deliveries.

1 Estimate log weights or volumes

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Length and average diameter or circumference of logs are measured using a measuring tape.
3) Approximate log weights or volumes are calculated using aids provided.
4) Log data and estimated weights or volumes are recorded accurately and legibly on standard documents.

2 Check, estimate and record loads

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Log species, size and quality acceptable for delivery are identified.
3) Trucks delivering loads are identified, documents checked and logs confirmed as suitable for delivery.
4) Problems identified with logs for delivery are referred to supervisor or senior log yard personnel.
5) Load height and stability are checked for compliance to organisation safety regulations.
6) Weight or volume of each log in the load is calculated and recorded with type of logs delivered as required by organisation standard procedures.
7) Confirmation of delivery record is obtained from truck driver.
8) Records of deliveries are summarised and provided to management and log yard personnel as required.
9) Communication with supervisor, drivers and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Direct trucks for unloading

1) Trucks are directed to unloading areas appropriate to the logs delivered.
2) Log yard personnel are notified promptly of deliveries requiring unloading.
3) Truck movements are monitored to identify personnel on site.
4) Communication with drivers and other workers is clear and effective.

Range of Variable Logs received may be hardwood or softwood

- Aids provided may include formulae, data tables and calculator
- Visual assessment covers: species, defects, length to industry standard dimensions, diameter within industry standard ranges
- Species recognised will include those normally received by the mill
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, vehicle loading safety requirements and organisation safety policy.

Evidence Guide

Underpinning Skills

- Segregate logs on the basis of size, defects and species across the full range of features which the mill will encounter
- Measure logs to organisation standards for accuracy
- Calculate and record log volumes or weights
- Store logs consistently within each location
- Minimise handling to meet sawing schedules and stock rotation requirements
- Identify: companies, personnel and trucks delivering logs, log yard layout and unloading areas.

Underpinning Knowledge

- Industry standard diameter ranges and length dimensions
- Companies, personnel and trucks delivering logs
- Log yard layout and unloading areas.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information	•		
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving problems			
Using technology			

Description

Includes the operation of the planer/sander to plane/sand board and operation and monitoring of all ancillary equipment.

1 Start up and shut down planer/sander

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Job requirements for panel sizes, thicknesses and quantities are obtained from supervisor or schedule.
3) Panels to be planed/sanded are identified and assessed.
4) Pre-start checks are conducted on equipment in accordance with organisation procedures and manufacturer's instructions.
5) Planing/sanding medium is confirmed or changed to suit production requirements and panels.
6) Planer/sander is adjusted for panel thickness, expected feed rate and material removal requirements.
7) Planer/sander and ancillary equipment are started in accordance with organisation procedures and manufacturer's instructions.
8) Planer/sander and ancillary equipment are shut down to organisation requirements.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Plane/sand panels

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Initial board is planed/sanded and quality of planing/sanding checked relative to organisation standards.
3) Adjustments are made to planer/sander as required to optimise feed rate, thickness and finish.
4) Planer/sander is operated to plane/sand panels in accordance with organisation standard procedures.
5) Planer/sander operation is continually monitored and changes to operating conditions investigated.
6) Panel thickness is checked in range of locations to organisation standard requirements relative to organisation or customer tolerances.
7) Material removal rates and surface finish are monitored against expected results and problems investigated.
8) Planed/sanded panels are regularly assessed to monitor planing/sanding operation.
9) Characteristics of excessively worn planing/sanding medium and damaged pads are detected.
10) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisation standard procedures.
11) Area around planer/sander is regularly cleared of sawdust as required by organisation procedures.
12) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisation procedures.
13) Production and quality records are completed in accordance with organisation standards.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
15) Oil mister is filled in accordance with manufacturer’s instructions and organisation requirements.

3 Change planer/sanding medium

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Need for planing/sanding medium change is identified.
3) Planer/sander is isolated to manufacturer's instructions.
4) Appropriate components are removed in accordance with organisation procedures and manufacturer's instructions.
5) Planing/sanding medium is assessed and need for change to operating conditions identified.
6) Planing/sanding medium and other components are renewed as necessary in accordance with organisation procedures to restore planing/sanding conditions.
7) Components are re-installed and set-up procedure repeated.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Unplaned/unsanded panel assessment covers thickness, moisture content, surface finish, surface material of species and anticipated material removal rates
- Planer/sanding medium change may be needed for the following reasons:
  - ◊ predetermined number of panel to be planed/sanded
  - ◊ deterioration in surface quality and foreign matter damaging planer/sanding medium
- Assessment of planer/sanding medium covers damage, foreign matter, excessive wear rate and clogging
- Planed/sanded panel assessment covers indents, foreign matter, scroll marks and surface finish
- Occupational health and safety requirements include protective clothing, manual handling, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Plane/sand panels to surface finish and thickness requirements
- Judge quality of output and adjust machine as required
- Recognise and respond to planer/sanding medium wear.

Underpinning Knowledge

- Planer/sanding process and planer/sanding medium grades and applications.

Assessment context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Description

Includes the cleaning, inspection and replacement of caul plates and screens.

1 Change and clean caul plates

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Plates requiring cleaning are identified and removed from circuit to plate rack in accordance with organisation requirements.
3) Plates are processed through full cleaning cycle used by the organisation.
4) Plates are inspected and those with defects separated for repairs.
5) Good plates are dried for further use.
6) Dry plates are prepared for use and returned to circuit in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Prepare backing screens

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Screens are rolled from plate and secured in accordance with standard procedures.
3) Screens are processed through full cleaning cycle used by the organisation.
4) Screens are stacked and inspected for faults to organisation standards.
5) Defective screens are identified and removed.

3 Repair and polish caul plates

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Plates are sorted for repair or polish to organisation standards.
3) Damaged areas are marked for repair and directed to maintenance personnel.
4) Plates are polished using polishing table and head in accordance with organisation procedures.
5) Polished plates are stored for use in accordance with organisation requirements.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Remove and replace transport plates

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Load shifting and transport requirements are co-ordinated to remove and replace plates with minimal downtime.
3) Defective plates are identified and removed from circuit in accordance with organisation requirements.
4) Replacement plates are prepared and fitted in accordance with organisation standard procedures.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Defects identified cover the range encountered within the organisation through normal use or accidental damage
- Cleaning procedures may require the use of chemical and/or heated treatment baths
- Occupational health and safety requirements include manual handling, protective clothing, handling of hazardous materials, elimination of hazards, machine isolation and guarding.

Evidence Guide

Underpinning Skills

- Identify defects on plates and screens requiring repair or replacement
- Identify the need for cleaning and polishing of screens and plates
- Carry out cleaning processes.

Underpinning Knowledge

- Occupational health and safety requirements
- Cleaning procedures and associated cleaning substances.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems	•		
Using technology		•	

Description

This unit describes the competencies required to dry material in a single or multi pass drier which is of continuous operating type using either steam, heated air or gas to dry material.

1 Monitor and control drier conditions

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Start-up checks of drier system and ancillary equipment are conducted in accordance with organisational standards.
3) Temperature and humidity levels are routinely checked to organisation standard procedures.
4) Temperature and humidity levels are reset to correct operating conditions or in accordance with supervisor's instructions.
5) Furnace is lit in accordance with organisational standards.
6) Records of drier conditions and adjustments are maintained to organisation requirements.
7) Start-up and shut-down of drier is completed in accordance with organisational procedures.
8) Routine checks of ancillary equipment are completed in accordance with organisational requirements and procedures.
9) Hot oil system is monitored and maintained in accordance with organisational standards.
10) Problems with drier operation are identified and reported to supervisor.
11) Alarms triggered by drier monitoring equipment are checked promptly, problems confirmed and emergency procedures followed.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
13) Housekeeping in drier area in accordance with occupational health and safety and organisational standards.

2 Process material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material requiring drying is assessed.
3) Material considered inappropriate for drying is identified and action taken in accordance with organisational standard procedures.
4) Material is fed into drier at a rate consistent with assessment and drying capacity.
5) Material is placed on conveyors in accordance with organisational standard procedures.
6) Feed rate to drier is maintained to maximise output consistent with organisational standards.
7) Infeed and outfeed storage levels are monitored and movement of material co-ordinated with other operators to avoid interruptions to drying process.
8) Fires are identified and emergency procedures followed in accordance with statutory and organisation requirements.
9) Conveyor or system blockages are cleared in accordance with organisational standard procedures.
10) Production records are maintained in accordance with organisational standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
12) Housekeeping in drier area is in accordance with occupational health and safety and organisation standards.

3 Monitor drying material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Processed material is visually assessed.
3) Moisture levels in processed material are routinely checked and compared with anticipated levels according to organisational standard procedures.
4) Problems with moisture readings are identified and rectified to organisation standard procedures.
5) Moisture level records are maintained to organisation requirements.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
7) Housekeeping in drier area is in accordance with occupational health and safety and organisation standards.

Range of Variables

- Checks of ancillary equipment may include oil levels, air filters, conveyors and chains
- Drier is of the continuous operating type using conveyors to transport material through a single or multi pass drier
- Visual assessment of processed material covers scorching, overall retained moisture and wet spots likely to affect further processes
- Monitoring and control covers all processing areas including pre-dryers, dryers and cooling sections
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, working in high temperature environments and organisation safety policy.

Evidence Guide

Underpinning Skills

- Maintain drier conditions with minimal lost processing time
- Monitor processing cycles
- Monitor processed material
- Obtain accurate moisture readings
- Maintain records
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Typical drying processes and problems and actions required.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities		•	
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

FPI WPP 405 A Grade finished product

Description

Grading in this unit deals with basic panels which have had an additional process applied to them. Product requirements are determined and evaluations made against those requirements.

1 Determine product requirements

1) Occupational health and safety regulations, policies and precautions are followed.
2) Finished product standards for line are determined.
3) Standards for special products are identified.
4) Initial visual assessment of immediate product output on-line is conducted to organisation standard procedure.
5) Sub-standard products identified are disposed of according to organisation standard procedure.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
7) Required records and documentation are completed in accordance with organisational procedures.

2 Evaluate products against grade requirements

1) Occupational health and safety regulations, policies and precautions are followed.
2) Specific grading requirements for line are obtained from organisation standard procedure, schedules, orders or supervisor requirements.
3) Specific grading requirements for particular order are identified from organisation standard procedures.
4) Product is systematically evaluated against all relevant grading criteria.
5) Difficult grade decisions are referred to more experienced graders, as appropriate.
6) Possible improvements to production process are referred to supervisor.
7) Product is marked according to organisation standard procedure.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Determine final grades

1) Occupational health and safety regulations, policies and precautions are followed.
2) Grade and fault markings are recognised and correctly interpreted.
3) Final grades are identified and grade markings or stickers applied according to organisation standard procedure.
4) Product is directed to correct area for stacking and packing.
5) Production and quality records are completed in accordance with organisation standard procedure.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Finished product may come from a variety of areas, including vinyl line, lamination line, paint line, hot press. For this competency standard the finished product is a basic panel which has had an additional process applied to it (e.g. laminated or painted).
- Grading requirements and criteria will be specific to the line and organisation involved
- Characteristics and imperfections identified will include those required by the organisation and will typically include dents, loose surface, lifting coatings, poor adhesion, thin or missing coatings, chipped edges, surface bubbles and pin holes.
- Occupational health and safety requirements include protective clothing, manual handling, machine guarding.

Evidence Guide

Underpinning Skills

- Grade to organisation standards
- Consistently visually assess to a reasonable degree of accuracy
- Isolate specific product grading requirements
- Complete required production records
- Identify imperfections
- Identify and differentiate between different surface treatment types within the range normally encountered by the organisation
- Identify organisation-based processing faults.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level		
	1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems		•	
Using technology			

FPI WPP 406 A Shift material with wheeled lifting equipment - basic

Description

Includes the use of equipment with fork-lift tines, crane hooks, chains, and slings and straps as attachments.

1 Perform routine checks on equipment

1) Vehicle is cleaned to ensure safe and tidy operation in accordance with organisation procedures.
2) Cab interior is cleaned to ensure maximum visibility and freedom of movement.
3) Regular checks are made of equipment components according to the manufacturer's specifications and organisation procedures.
4) Fluid levels and air pressures are maintained to manufacturer's specifications.
5) Damaged components are identified and reported according to organisation procedures.

2 Select equipment and prepare to shift loads

1) Equipment and/or attachments suitable for the load are selected.
2) Where appropriate, attachments are fitted to the equipment or existing attachments are inspected to ensure correct attachment.
3) External check is made of equipment and attachments in accordance with manufacturer's instructions or equivalent.
4) Job accessories are checked prior to operation to ensure they are available and serviceable.
5) Mill yard and loading space are inspected to identify hazards within the vehicle operational area to:
- remove them where appropriate
- plan to control them.

6) Nearby personnel are advised of impending vehicle operation as appropriate.
7) Communication signals to be used are confirmed with yard personnel.
8) Engine is started in accordance with manufacturer's guidelines and organisation start-up procedures.
9) Instruments and gauges are monitored to ensure vehicle operation is safe according to manufacturer's specifications and safety rules.
10) Checks are made of safety equipment and controls to ensure they are operational according to organisation and manufacturer's documentation and safety rules.

3 Shut down and secure equipment

1) Vehicle is parked to avoid site and equipment hazards.
2) Shut-down procedure is completed to manufacturer's requirements and organisation procedures.
3) Post-operational checks are completed to manufacturer's requirements.
4) Equipment faults are reported to supervisor.

4 Identify and lift load

1) Load location is identified from load sheet/instructions in accordance with organisation procedures.
2) Weight of load is assessed to ensure compliance with equipment load-plate specifications.
3) Multiple packs are stacked for combined lift.
4) Stability of load over transport route is assessed.
5) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel.
6) Vehicle speeds and engine power are managed to safe operating limits and manufacturer's specifications.
7) Communications with loading personnel are maintained according to agreed signals.
8) Loads are lifted so that stability of load and vehicle are maintained.
9) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
10) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported to organisation procedures.
11) Lift identifications tags are completed in accordance with organisation procedures and standards.

5 Shift load to unloading point

1) Safe operating procedures are followed according to site regulations and in co-operation with other personnel.
2) Route is planned considering road conditions, traffic, load restriction and manoeuvring space to ensure safe and efficient transport of load.
3) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel.
4) Vehicle speeds and engine power are managed to safe operating limits and manufacturer's specifications.
5) Communications with yard and other personnel are maintained according to agreed signals and organisation procedures.
6) Route and speeds are selected so that stability of load and vehicle are maintained.
7) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
8) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported to organisation procedures.
9) Minor emergency maintenance is completed where the vehicle is away from repair facilities.

6 Place load in required location(s)

1) Communications with yard personnel are maintained according to agreed signals.
2) Loads are placed in stable temporary position where required and unstacked.
3) Loads are placed to ensure stability of material and avoid site hazards.
4) Location records are updated as required to organisation procedures.

Range of Variables

- Equipment will include one of the following: fork lift, side loader, end loader, straddle truck, slewing or non-slewing mobile crane
- Equipment attachments include fork lift tines, crane hooks, chains, slings and straps
- Operations include the following: mill and roads, even and irregular ground, one or multiple pack(s) of range of products produced by mill, co-ordination with other personnel at point of lift, transport and lower
- Job accessories may include safety clothing and equipment, vehicle manuals, vehicle tools, job and vehicle records and writing equipment, first aid kit and breakdown gear.

Evidence Guide

Underpinning Skills

- Move a range of loads and multiple-loads within yard and on road
- Operate equipment including:
  - ◊ appropriate and controlled movements to manufacturer's specifications and standard operating procedures
  - ◊ no injury occurs to personnel
  - ◊ no damage occurs to property, equipment or load
  - ◊ efficient utilisation of loading area.

Underpinning Knowledge

- Manufacturer's and organisation requirements on equipment operation for yard and road operations
- Mill, yard and road hazards.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

FPI WPP 407 A Shift logs with wheeled lifting equipment - basic

Description

This unit describes the work required to lift and move logs to position ready for transport or processing.

1 Perform routine checks and maintenance on equipment

1) Vehicle is cleaned to ensure safe and tidy operation to organisation procedures.
2) Cab interior is cleaned to ensure maximum visibility and freedom of movement.
3) Regular checks are made of equipment components according to the manufacturer's specifications and organisation procedures.
4) Fluid levels and air pressures are maintained to manufacturer's specifications.
5) Damaged components are identified and reported according to organisation procedures.

2 Select equipment and prepare to shift logs

1) Equipment and/or attachments suitable for the logs are selected.
2) Attachments are fitted to the equipment or existing attachments are inspected to ensure correct attachment, where appropriate.
3) Check is made of equipment in accordance with manufacturer's instructions or equivalent.
4) Job accessories are checked prior to operation to ensure they are available and serviceable.
5) Mill yard and loading space is inspected to identify hazards within the vehicle operational area to:
- remove them where appropriate
- plan to control them.

6) Nearby personnel are advised of impending vehicle operation as appropriate
7) Communication signals to be used are confirmed with yard personnel.
8) Engine is started in accordance with manufacturer's guidelines and organisation start-up procedures.
9) Instruments and gauges are monitored to ensure vehicle operation is safe according to manufacturer's specifications and safety rules.
10) Checks are made of various components of the vehicle to ensure they are operational in accordance with organisation and manufacturer's documentation and safety rules.

3 Shut down and secure equipment

1) Vehicle is parked to avoid site and equipment hazards.
2) Shut-down procedure is completed to manufacturer's requirements and organisation procedures ensuring safety locks and implements are in place.
3) Post-operational checks are completed to manufacturer's requirements.
4) Equipment faults are reported to organisation procedures.

4 Identify and lift load

1) Log location is identified from load sheet/instructions in accordance with organisation procedures.
2) Weight of logs is assessed to ensure compliance with equipment load-plate specifications.
3) Multiple logs are stacked for combined lift.
4) Stability of load over transport route is assessed.
5) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel, and according to organisation and site regulations and procedures.
6) Vehicle speeds and engine power are managed to safe operating limits and manufacturer's specifications.
7) Communications with loading personnel are maintained according to agreed signals.
8) Logs are lifted so that stability of load and vehicle are maintained.
9) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
10) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported to organisation procedures.

5 Shift logs to unloading point

1) Route is planned considering road conditions, traffic, load restriction and manoeuvring space to ensure safe and efficient transport of load.
2) Adequacy of manoeuvring room in yard is assessed from load.
3) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel.
4) Vehicle speeds and engine power is managed to safe operating limits and manufacturer's specification.
5) Communications with yard and other personnel are maintained according to agreed signals and organisation procedures.
6) Route and speeds are selected so that stability of load and vehicle are maintained.
7) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
8) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported to organisation procedures.
9) Minor emergency maintenance is completed where the vehicle is away from repair facilities.

6 Place load in required location(s)

1) Communications with yard personnel are maintained according to agreed signals.
2) Logs are placed in stable temporary position where required and unstacked.
3) Logs are placed to ensure stability of material and avoid site hazards.
4) Location records are updated as required to organisation procedures.

Range of Variables

- Equipment will include one of the following: rigid loader, articulated loader, fork lift, mobile crane
- Operations include the following: mill and roads, even and irregular ground, multiple logs, co-ordination with other personnel at point of lift, transport and lower
- Job accessories may include safety clothing and equipment, vehicle manuals, vehicle tools, job and vehicle records and writing equipment, first aid kit and breakdown gear
- Equipment attachments include fork lift tines, grabs, crane hooks, chains, slings and straps.

Evidence Guide

Underpinning Skills

- Move a range of loads and multiple-loads within yard and on road
- Operate equipment including:
  - ◊ efficient operation of vehicle
  - ◊ appropriate and controlled movements to manufacturer's specifications and standard operating procedures
  - ◊ no injury occurs to personnel
  - ◊ no damage occurs to property, equipment or load
  - ◊ efficient utilisation of loading area.

Underpinning Knowledge

- Manufacturer's and organisation requirements on equipment operation for yard and road operations
- Mill, yard and road hazards.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

Includes heat treating board in both standard or controlled humidity oven types.

1 Monitor and control oven conditions

1) Occupational health and safety regulations, policies and precautions are followed.
2) Temperature and humidity levels are routinely checked to organisation standard procedures.
3) Processing cycles are identified and times for changing oven conditions established and recorded.
4) Need to change oven settings is confirmed from processing cycles and condition of timber being processed and adjustments made to alter oven conditions to organisation standard procedures.
5) Clear and accurate records are maintained of oven conditions and adjustments.
6) Routine minor maintenance and housekeeping procedures are regularly carried out on and around ovens.
7) Problems with oven operation are identified and reported to supervisor.
8) Alarms triggered by oven monitoring equipment are checked promptly, problems confirmed and emergency procedures followed.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Prepare board for processing

1) Occupational health and safety regulations, policies and precautions are followed.
2) Board to be heat treated is visually checked.
3) Racks containing boards of consistent processing condition and allowable range of thicknesses are prepared to load into oven.
4) Racks identified for each load are selected to maximise use of oven space.
5) Racks are assessed and problems reported to supervisor.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Unload and load ovens with minimal down time

1) Occupational health and safety regulations, policies and precautions are followed.
2) Confirmation is obtained that processing of load is completed.
3) Oven is shut down or conditions reset according to organisation standard procedures to enable safe entry.
4) Oven is opened and condition of processed timber is confirmed according to organisation standard procedures.
5) Oven is loaded with racks selected for processing with minimal delay.
6) Adjustments are made to oven control settings to establish processing conditions according to organisation standard procedures.
7) Production and quality records are completed in accordance with organisation standard procedures.
8) Processed racks are tagged or marked according to organisation standard procedures.
9) Communication and co-ordination are maintained with other operators to minimise delays.

4 Monitor processing of board

1) Occupational health and safety regulations, policies and precautions are followed.
2) Board samples are taken according to organisation standard procedures.
3) Weight, thickness and density checks are completed in accordance with organisation procedures.
4) Test results are used to modify processing cycles according to organisation standard procedures.
5) Problems with results are identified and reported to supervisor.
6) Clear and accurate records of test results are maintained.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Visual assessment of racks covers stability, spacing of boards and support to minimise warping
- Oven may be standard or controlled humidity types
- Oven operational problems to be identified include temperature and humidity settings, water drainage, atomising sprays and fans
- Occupational health and safety requirements include manual handling, protective clothing, machine isolation, elimination of hazards, working in high temperature environments and organisation safety policy.

Evidence Guide

Underpinning Skills

- Maintain processing conditions with minimal lost time on operating ovens
- Monitor processing using common cycles
- Obtain accurate board test results
- Maintain records.

Underpinning Knowledge

- Typical problems encountered with racks, ovens and processing.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems			
Using technology		•	

Description

Includes treating and cutting paper with guillotine or traversing rotary cutter.

1 Load paper

1) Occupational health and safety regulations, policies and precautions are followed.
2) Paper treatment requirements are determined from orders, schedules or supervisor's instructions.
3) Paper rolls are identified and moved to loader.
4) Change is co-ordinated with other processes and operators to minimise treatment delays.
5) Rolls are changed in accordance with organisation standard procedures.
6) Paper is threaded and feed initiated in accordance with organisation and equipment manufacturer's procedures.
7) Damage to paper is minimised.
8) Feed is monitored to ensure correct operation.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Run and monitor treater

1) Occupational health and safety regulations, policies and precautions are followed.
2) Treater is brought to full operating condition in accordance with organisation standard procedures.
3) Operational parameters are regularly checked in accordance with organisation standard procedures.
4) Paper is kept free of foreign material by regular cleanliness checks on all sections.
5) Resin parameters are regularly checked in accordance with organisation standard procedures.
6) Line is run and paper treated to organisation standard procedure.
7) Treated paper is regularly assessed and appropriate operating parameters adjusted.
8) Production and quality records are maintained to organisation standard procedure.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Fill resin tank

1) Occupational health and safety regulations, policies and precautions are followed.
2) Resin feed is shut off from tanks to organisation standard procedure.
3) Tanks are thoroughly washed and drained to organisation standard procedure.
4) Resin is pumped from delivery truck to tank following standard procedures.
5) Tank area is washed to organisation requirements.
6) Resin receipts are recorded and appropriate documentation completed.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Operate effluent system

1) Occupational health and safety regulations, policies and precautions are followed.
2) Effluent tanks are monitored and need for cleaning identified.
3) Settling agents are added to effluent tanks to organisation standard procedures.
4) Effluent is given sufficient time to settle.
5) Solids are removed and disposed of in accordance with statutory and organisation requirements.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

5 Cut paper to length

1) Occupational health and safety regulations, policies and precautions are followed.
2) Cut length requirements are determined from orders, schedules or supervisor's instructions.
3) Requirements for special products are identified.
4) Paper is visually assessed at production rate and defects identified.
5) Feeder and cutter operation are co-ordinated with treater operation to minimise downtime.
6) Cutter is operated to cut paper in accordance with organisation standard procedures.
7) Optimal cutting positions are selected to minimise defects and maximise cut sheets.
8) Defects caused by treater are identified and promptly investigated or reported to the relevant personnel.
9) Off-cuts and scrap are regularly cleared.
10) Feeders and conveyors are regularly monitored for material flow problems.
11) Characteristics of guillotine blade bluntness or damage are identified and reported to supervisor.
12) Problems and equipment faults are reported to supervisor promptly and fully.
13) Sheets are removed, stacked and covered in accordance with organisation requirements.
14) Paper is moved or movement is requested to maintain effective operational area.
15) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Types of checks on paper include dry width, expansion ratio, contamination and resin weight
- Loading system may use an accumulator or require process interruption
- Equipment used for paper cutting may be guillotine or traversing rotary cutter
- Paper and treatment requirements vary with paper manufacturer
- Operational parameters may include vat temperatures, oven temperatures, resin properties and line speed
- Occupational health and safety requirements include manual handling, machine isolation, machine guarding, protective clothing, elimination of hazards, dealing with hazardous chemicals and organisation safety policy.

Evidence Guide

Underpinning Knowledge

- Operating system.

Underpinning Skills

- Safely maintain work area
- Load and treat paper to manufacturer and organisation requirements
- Cut paper to length
- Handle resin and resin system
- Maintain correct effluent treatment procedures.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes the use of both mechanical stress grader and high-speed mechanical grader.

1 Check and set machine

1) Occupational health and safety regulations, policies and precautions are followed.
2) Order and schedule requirements are identified and matched to stock.
3) Correct tooling and program for mechanical stress grading operation are selected.
4) Spray guns and/or branding rolls are set up for use in accordance with standard procedures.
5) Pre-start checks are conducted to organisation standards and manufacturer's instructions.
6) Calibration procedure is performed in accordance with organisation standards.
7) Verification panels are stored safely when not in use.
8) Correct grade threshold settings are set in accordance with organisation standards.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Operate machine and monitor grading

1) Occupational health and safety regulations, policies and precautions are followed.
2) Start up procedures are performed for all machine areas.
3) Material flow to machine is planned and co-ordinated with other operators to ensure minimal downtime.
4) Grading process is run automatically and correct operation of machine, gates and conveyors confirmed.
5) Flow of material through machine is maintained.
6) Breakdowns are communicated and appropriate remedial action taken.
7) Routine problems with transfer of material are investigated and resolved in conjunction with other operators.
8) Appearance of grade marking on panels is regularly checked to standards.
9) Machine performance is monitored to ensure grades marked are consistent with machine measurement and visual assessment of boards.
10) Samples for independent testing are prepared in accordance with organisation requirements and relevant standards.
11) Required machine calibrations are performed in accordance with organisation procedures.
12) Production and quality records are maintained in accordance with standard procedures.
13) Communication with other operators and line personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain equipment

1) Occupational health and safety procedures relating to job and work area are observed.
2) Photo-electric cells and reflectors or other switching systems are regularly cleaned and checked in accordance with organisation standard procedures.
3) Spray guns and/or branding rolls are regularly checked in accordance with organisation standard procedures.
4) Dye levels are regularly checked and maintained to ensure consistent operation.
5) Mechanical stress grader rollers, autofeed and load pressure are adjusted to required settings in accordance with organisation standard procedures.
6) Basic checking and maintenance procedures are followed in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Machines used may include mechanical stress grader and high-speed mechanical grader
- Visual and mechanical grading standards include all industry and organisation standards
- Board type graded may include laminated veneer, plywood, chip board, fibreboard and medium density fibreboard over the full organisation range thickness and number of plies
- Occupational health and safety requirements include manual handling, operation of equipment, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Plan and set up grading equipment for specific products
- Grade panels at optimum rate and while maintaining production flow
- Communicate effectively with others in associated production areas
- Solve problems in simulated situations.

Underpinning Knowledge

- Machine function and capabilities
- Relevant standards
- Industry standard sizes, thicknesses and tolerances
- Routine problem solving approaches.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

FPI WPP 411 A Transfer loads using overhead crane (gantry)

Description

Includes cabin, pedestrian, or remote operated crane.

1 Check crane operation and work area

1) External and operational check is made of crane in accordance with manufacturer's instructions and organisation standards.
2) Attachments are inspected to ensure security.
3) Crane service log book is checked to ensure all service requirements have been met.
4) Site hazards are identified and assessed in accordance with Australian Standards and occupational health and safety procedures.
5) Weather conditions are assessed, where appropriate, to determine safe operating conditions for outside cranes.
6) Nearby personnel are notified of impending crane operation as required.
7) Communication signals are confirmed with any assisting personnel.
8) Safety procedures are followed in energising equipment, to organisation procedures.
9) Checks are made for abnormal noise and operation after the crane has been started.
10) Crane equipment and controls are located and identified and their correct operation tested in accordance with prescribed procedures.
11) Lifting gear is inspected to segregate defective items.
12) Defective equipment is reported according to organisation procedures and defects noted in crane service log book.

2 Secure and transfer loads

1) Work requirements are obtained according to organisation procedures..
2) Work is planned to maintain mill workflow and minimise unloaded movement.
3) Weight of load is estimated to determine lifting requirement.
4) Configuration of lifting gear proposed for load is checked against Australian Standards and codes of practice.
5) Appropriate checks are made on non-standard loads to ensure safe lifting conditions.
6) Load is lowered for corrective action to be taken where trial lift reveals an unacceptable operational situation.
7) Hazard control strategies are implemented for identified hazards.
8) Load is hoisted and lowered into position using all relevant crane movements in accordance with Australian Standards, and organisation requirements.
9) Gantry and carriage is positioned to ensure load to be lifted is plumbed under hook.
10) Tagline is used where control of load is critical.
11) Stability of load is maintained at all times.
12) Signals are made and interpreted with associated persons to co-ordinate work.

3 Shut down crane

1) Crane is shut down in accordance with manufacturer's instructions.
2) Safety locks, brakes and securing procedures are applied in accordance with Australian Standards to prevent accidental crane movements.
3) Lifting gear is checked and defective equipment is segregated and reported to organisation procedures.

Transfer loads using overhead crane (gantry) FPI WPP 411 A

Range of Variables

- Type of crane may include one of the following: pedestrian or remote operated, cabin operated
- Range of loads and lifting procedures: standard mill loads, non-standard requiring trial lifts.

Evidence Guide

Underpinning Skills

- Move standard and non-standard loads ensuring:
  - ◊ load is correctly slung
  - ◊ correct operation of crane
  - ◊ load is within crane limits, particularly where load measuring devices are fitted
- Undertake start-up and shutdown procedures
- Schedule movements to maintain material flow in mill to required timing.

Underpinning Knowledge

- Crane and mill hazards
- Manufacturer's, Australian Standards and organisation requirements on crane operation
- Start-up and shutdown procedures
- Scheduling techniques to maintain material flow in mill to required timing.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Description

Includes the dispatch of materials to meet customer orders.

1 Select material for orders

1) Customer orders are accessed and analysed, to organisation standards and procedures.
2) Relevant information on available material is accessed.
3) Material to be used to fill orders is selected from stock records to minimise order preparation needs.
4) Cutting requirements to fill orders are identified.
5) Shortfalls in customer order are analysed and information conveyed to relevant personnel.
6) Order requirements, material to be used, associated tasks and required timing are communicated clearly to other personnel.

2 Document and dispatch orders

1) Dispatch notices necessary to complete filling of order are written in accordance with organisation procedures.
2) Delivery method is selected in accordance with organisation requirements and specific customer or order instructions.
3) Delivery is arranged within time-frame specified by customer.
4) Delivery instructions and references for customer order are prepared and provided to relevant personnel.
5) Consolidation and scheduling of transport requirements are completed to minimise delays and costs.
6) Back order requirements are documented in accordance with organisation procedures.
7) Documentation associated with cancellation of orders is completed in accordance with organisation procedures.
8) Dispatch records are completed in accordance with organisation procedures
9) Communication with other workers, transport personnel and customers is courteous, clear and effective.

Range of Variables

- Material may be any of the board types, fabricated products or ancillary material provided by the organisation
- Order analysis will include material type, surface treatment, sizes, grades, quantities, special requirements, delivery timing and transport instructions.

Evidence Guide

Underpinning Skills

- Understand full range of orders used by organisation customers
- Select appropriate material and identify shortfalls
- Communicate instructions effectively
- Co-ordinate transport
- Maintain internal documentation.

Underpinning Knowledge

- Methods used to select material for orders.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information	•		
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

Includes board pressed from hardwood or softwood chip, flake or fibre.

1 Prepare for press operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Press operational status is determined from log book, previous operator and instrumentation.
3) Production requirements are determined from schedule and supervisor's instructions.
4) Start-up checks are completed to organisation standard procedures.
5) Equipment is started and brought to operating condition.
6) Cycle times, pressures, temperatures and product parameters are set for production requirements.
7) Operational condition and set-up of former is checked to confirm mat condition.
8) Mats, screens, trays and plates are positioned to load press in accordance with standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
10) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisational guidelines.

2 Run and monitor press

1) Occupational health and safety regulations, policies and precautions are followed.
2) Defects in mats, trays or plates are identified before loading and rectified.
3) Equipment is operated to press boards according to organisation standard procedure.
4) Board position is checked and adjusted as necessary.
5) Press condition is regularly monitored to confirm operation to organisation standards.
6) Press cycle time, pressure, and temperature are adjusted to meet production requirements and correct processing conditions.
7) Mat condition and feed are regularly monitored and problems investigated or notified to other operators.
8) Unload/load cycles are completed with minimal downtime.
9) Pressed board is regularly assessed and changes to former and press set-up co-ordinated to make necessary changes.
10) Thickness changes are co-ordinated with forming/blending requirements to ensure minimal lost time or materials.
11) Area around press is regularly cleaned in accordance with organisation standard procedures.
12) Routine problems are investigated and resolved.
13) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisation procedures.
14) Production and quality records are completed in accordance with organisation standards.
15) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Unload press

1) Occupational health and safety regulations, policies and precautions are followed.
2) Press is opened in accordance with standard procedures.
3) Board, screens and plates are separated and removed.
4) Unloading equipment is operated to organisation standard procedures to clear board and load cooling receiver.
5) Boards are trimmed and checked to organisation standards and any necessary corrective action is taken.
6) Board is unloaded from cooling receiver and stacked in accordance with organisation standard procedures.
7) Boards and samples are marked to organisation standard procedure.
8) Press bars/stops are cleaned, checked for damage and stored in accordance with organisation requirements.
9) Plate and screen condition are monitored during unloading and necessary corrective action taken.
10) Board is measured and inspected for defects and required quality records completed.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Close down and maintain press

1) Occupational health and safety regulations, policies and precautions are followed.
2) Stop time is co-ordinated with operation of former.
3) Standard loading procedure for shut-down is followed.
4) Press is shut down to organisation standard procedure.
5) Transport plates are cleaned to organisation requirements.
6) Screens are checked, cleaned, and maintained to organisation standards.
7) Press systems are checked in accordance with organisation standard procedures and manufacturer's instructions.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Board may be pressed from hardwood or softwood chip, flake or fibre
- Checks include squareness, edge finish quality, surface blemishes and missing surface/core
- System loading may be electric, hydraulic or pneumatic
- Monitoring of press operation includes temperature, steam pressure, loading system, cycle time and unloading/cooling system, reuse system
- Monitoring of press operation achieved by physical observation and may include use of automated equipment
- Assessment of board covers weight, thickness, length, width, bond, porosity, moisture content, bare fibres, foreign material and overall visual appearance, surface blemishes and trimmed edge appearance
- Process may include a pre-pressing operation
- Occupational health and safety and environmental requirements include housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Start up, shut down and operate press
- Operate unloading/cooling system
- Monitor and maintain processing conditions
- Load/unload and produce boards in required cycle times
- Assess board and interpret test results
- Maintain records
- Co-ordinate press operation with overall production line
- Meet occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Key process variables
- Press hydraulic system
- Board making principles
- Reuse system
- Typical problems encountered with board, equipment and processing
- Occupational health and safety and environmental standards.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Description

This unit describes the work required to prepare and maintain the process effluent as well as distributing the water to pasture.

1 Prepare plant

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Pumping lines are set up and checked to organisation standard procedure.
3) Treatment solution is pumped from mixing tank to effluent line settling pits and clarifier.
4) Sludge is run from clarifier to organisation standard procedure.
5) Water is drained from sludge beds.
6) Water is pumped to pasture to organisation standard procedure.
7) Problems are identified and reported to supervisor or relevant personnel.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Distribute water to pasture

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Water is directed to appropriate area according to supervisor's instructions.
3) Flow rate is determined in order to suit required absorption rate.
4) Flow is continually monitored and adjusted when necessary.
5) Ph level is determined and monitored and adjustments made according to organisation standard procedure.
6) Problems are identified and reported to supervisor and other relevant personnel.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain plant

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Settling pits are drained and cleaned to collection point.
3) Solids are cleaned from discharge drain.
4) Water is recirculated from catchment area to irrigation.
5) Dam banks are monitored for weed and vermin.
6) Problems are identified and reported to supervisor or other relevant personnel.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Amount of water and absorption rate of pastoral area may vary
- Water Ph may vary
- Occupational health and safety requirements include manual handling, protective clothing, handling of wastes and chemicals, organisation safety policy and all requirements of environmental protection policies for both organisation and external authorities.

Evidence Guide

Underpinning Skills

- Operate effluent control system
- Discharge correctly treated water to disposal plan
- Monitor effluent quality
- Monitor effluent absorption.

Underpinning Knowledge

- Operating systems and procedures
- Environmental protection requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes planning for and setting up equipment, and machining a variety of board types, plywood, and laminated veneer.

1 Plan machining process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Required board type, panel sizes, quantities and machined details are determined from orders, schedules or supervisor's instructions.
3) Suitable board and panel sizes are selected or ordered as required by organisation procedures.
4) Available panels are assessed and material removal rates estimated, according to organisation standard procedure.
5) Equipment to be used for machining process is selected in accordance with organisation standard procedures.
6) Planned cutting and machining maximises volume recovery and efficient use of equipment.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Set up and start machining process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Templates suitable for checking profile cutters and finished product are selected, checked and corrected to order/drawing requirements when necessary.
3) Cutters are selected to suit machined product dimensions required and available material.
4) Cutters are checked and minor grinding or sharpening operations carried out as necessary.
5) Cutters are installed and set in machining equipment in accordance with standard procedures.
6) Feed rates are set to suit planned machining operation in accordance with standard procedures.
7) Guides and conveyors are set to suit processing sizes in accordance with standard procedures.
8) Pre-start-up checks are carried out on equipment in accordance with standard procedures.
9) Trial products are machined by operating equipment in accordance with standard procedures.
10) Trial products are checked and equipment adjusted to correct faults identified, in accordance with organisation standards and tolerances applied for the process.
11) Equipment logs and records are completed in accordance with organisation standards.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Machine products

1) Occupational health and safety regulations, policies and precautions are followed.
2) Material supply is co-ordinated with supervisor or other relevant personnel.
3) Equipment is operated to produce products in accordance with manufacturer's and organisation procedures.
4) Reject material is identified and directed for waste or recovery.
5) Machined panels are supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
6) Defects in panels or machining problems are recognised and necessary adjustments made.
7) Routine problems with transfer of material are investigated and resolved.
8) Production and quality records are completed in accordance with organisation standard procedures.
9) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisation procedures.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment used is one or more of the following: single or multi-head moulder, spindle moulder, single or double end tenoner, mortiser, router, borer or multi-borer, sanders, wide-belt and narrow-belt
- Board machined will cover the range of types available in the organisation and may include laminated veneer, plywood, chip board, fibreboard and medium density fibreboard, with a range of surface treatments, edge treatments, sizes, thicknesses and grades
- Faults recognised in machined board include burn marks, poor surface finish, extra cuts, excessive cutter marks and dimensional errors
- Occupational health and safety requirements include protective clothing, manual handling, elimination of hazards, operation and isolation of equipment, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Produce products at optimum rate and finish quality
- Measure finished dimensions of profiles and details with accuracy appropriate to tolerances
- Change fixed cutters
- Joint simple cutters
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Typical board defects and machining problems which require action to be taken
- Recognition methods for blunt or damaged cutters
- Routine problem-solving approaches and demonstrates the ability to solve routine machining problems in simulated situations
- Industry standard cross-section and length dimensions and tolerances
- Industry standard profiles and machining terminology.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Description

Includes planning, building, monitoring and recording packs for strapping using automatic or semi-automatic stacking equipment.

1 Plan the building of packs

1) Occupational health and safety regulations, policies and precautions are followed.
2) Type and quantity of material to be stacked is identified.
3) Specific pack sizes and other requirements are identified from supervisor's instructions, order or organisation standards.
4) Area for stacking is planned, to organisation standard procedure.
5) Required equipment is obtained.
6) Availability and supply of material is monitored and requirements communicated to supervisor.
7) Additional material requirements are identified and obtained, according to organisation requirements.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Build packs with a mechanical stacking machine

1) Occupational health and safety regulations, policies and precautions are followed.
2) Stacking machine is checked in accordance with manufacturer's specifications and organisation standard procedures.
3) Machine defects and damage are recognised and reported.
4) Machine is set up to produce planned pack sizes in accordance with manufacturer's specifications.
5) Packs are built from the material identified to organisation standard procedures.
6) Material of consistent type, size and thickness is stacked.
7) Bearers and protective strips required for pack type are placed squarely, evenly and consistently.
8) Bearers are checked for consistent thickness and damage and are discarded as necessary.
9) Routine problems are identified and remedial action taken where appropriate or problem reported to supervisor/maintenance personnel.
10) Machine faults that arise are recognised and reported to supervisor or maintenance personnel.
11) Stacking machine is shut down in accordance with manufacturer's specifications and left in a safe condition.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Monitor and record the building of packs

1) Occupational health and safety regulations, policies and precautions are followed.
2) Material stacked is monitored for grade and quality and unacceptable components removed and stored for reprocessing.
3) Packs are finished at the correct count or dimension.
4) Finished packs are identified using written information or completed tags according to organisation standards, order or supervisor's instructions.
5) Packs are checked during building to ensure material is safely stacked
6) Finished packs are moved (or movement is requested) to maintain adequate and safe working area.
7) Number of packs built or quantity of material stacked is monitored against order or instruction and supervisor notified or stacking operation changed at the correct time.
8) Records are completed detailing material types, sizes and quantities stacked.
9) Problems and machine faults that arise are recognised and reported to supervisor.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment will include one of the following: semi-automatic type, automatic type
- Board stacked will cover the range of types available in the organisation and may include laminated veneer, plywood, chip board, fibreboard and medium density fibreboard, with a range of surface treatments, edge treatments, sizes, thicknesses and grades
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Set up and operate stacking machines
- Build packs mechanically to organisation standards
- Complete required production records
- Identify acceptable spacing sticks and bearers
- Solve problems in simulated situations
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Planning and communication processes associated with stacking material
- Routine problem solving approaches.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems	•		
Using technology	•		

FPI WPP 418 A Prepare and test mixes

Description

Includes the preparation and testing of the available range of mixes and using a variety of tests.

1 Prepare and sample mixes

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Type, quantity and specifications of mixes to be prepared are determined from scheduled requirements, other production area orders and supervisor's instructions.
3) Availability of required quantities of all ingredients is confirmed before mix is started.
4) Conformance of ingredients to organisation specifications is confirmed.
5) Glue and other ingredients are handled in accordance with organisation requirements, supervisor's instructions and material safety data sheets.
6) Ancillary equipment used for addition of other ingredients is operated in accordance with organisation and manufacturer's procedures.
7) Mix cycles are determined from organisation specifications.
8) Pre-start checks are conducted and blender is started to organisation standard procedures.
9) Glue, additive and chip/fibre levels are regularly monitored.
10) Samples are regularly taken from mix and tested in accordance with organisation standard procedures.
11) Mix is transferred to appropriate storage area or production equipment without contamination through transfer lines or with other mixes stored.
12) Routine mixing problems are identified and resolved.
13) Production and quality records for mixed batch are completed in accordance with standard procedures.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Test samples and maintain mixing processes

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Tests are completed on samples taken in accordance with testing schedules and standard test procedures.
3) Tests on manufactured products and processes relating to mixes produced are monitored to confirm tack and adhesion properties.
4) Test results are interpreted and adjustments made to mixes in conjunction with supervisor.
5) Faults in equipment are identified and repair requested in accordance with organisation standard procedures.
6) Production and quality records allowing traceability of all mixes are maintained in accordance with standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Mix tests may include fibre, flake or chip characteristics, viscosity, component quantities, colour, spread, tack and cured bond strength
- Product and process tests include tack, uncured adhesion, cured adhesion, cured strength and surface properties
- Mixes will cover the range of types, recipes and mixing cycles used by the organisation
- Equipment used is:
  - ◊ mixer with manually controlled feed from ingredient storage
  - ◊ mixer with pre-programmed mix quantities and cycles
  - ◊ transfer systems
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Prepare mixes to required specifications
- Test mixes to requirements
- Understand mix test results and production requirements
- Maintain a clean and contamination-free mixing area
- Communicate effectively with others in associated production areas
- Maintain traceability records.

Underpinning Knowledge

- Methods of establishing mix requirements
- Routine mixing problems occurring and actions required
- Requirements for transferring mixes to storage or production areas
- Organisation mix types and product uses.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information		•	
Communicating ideas and information			
Planning and organising activities		•	
Working with others in teams			
Using mathematical ideas and techniques			
Solving Problems		•	
Using technology	•		

Description

This describes the work required to paint panels using a range of processes including roller coating, curtain coating, and spray booths.

1 Start and operate coating line

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements are identified from supervisor's instructions or production schedules.
3) Painting equipment is set up according to organisation standard procedures.
4) Trays, overflow trays and thinner reservoir are positioned as required to organisation specifications.
5) Applicator rollers are prepared and paint reservoirs filled to organisation standard procedures.
6) Pump and applicator rollers are turned on in accordance with organisation standard procedures.
7) Adjustments to equipment settings and paint thickness are made in response to painting results.
8) Communication with supervisor and workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Load and unload painting operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Schedule requirements are identified from supervisor’s instruction or production schedules.
3) Products are loaded in accordance with organisation standard procedures for position, orientation and separation.
4) Faulty and contaminated products – within the scope of the operator's knowledge – are identified and removed and returned to supervisor or other operators as required.
5) Products are received from outfeed and surface tack regularly checked against organisation standards.
6) Products are graded, when required, to organisation standards.
7) Paint problems and equipment faults are reported to supervisor promptly and fully.
8) Production and quality records are completed in accordance with organisation standards.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Plan and co-ordinate painting operation

1) Occupational health and safety regulations, policies and precautions are followed.
2) Product flow to machine is planned and co-ordinated with other operators to ensure minimal set-ups and down time.
3) Products are received from outfeed and checked to ensure they have been cured to organisation standards.
4) Viscosity of paint in reservoirs is regularly monitored and corrections made or initiated.
5) Products are graded, when required, to organisation standards.
6) Products are packed or stacked in accordance with production requirements.
7) Routine painting problems and equipment faults are investigated and resolved.
8) Production and quality records are completed in accordance with organisational guidelines.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Shut down paint line

1) Occupational health and safety regulations, policies and precautions are followed.
2) Painting equipment is shut down according to organisation standard procedures.
3) Level of paint in reservoirs is reduced to shut-down level.
4) Pump is switched off, according to organisation standard procedures.
5) Thinners are added to reservoir, according to organisation standard procedures.
6) Rollers and trays are removed and cleaned in accordance with organisation requirements.
7) Communication with supervisor and workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Equipment will be one of a roller coating line, curtain coating line or similar process
- Unpainted products are checked for dust contamination, water spots and base product faults
- Painted products are inspected for paint defects, contamination and coating defects
- Paint surface is checked for incomplete cover, solvent boil, base product faults, contamination and coating defects
- Occupational health and safety requirements include manual handling, protective clothing, safety equipment, elimination of hazards, machine isolation, machine guarding and use of inflammable material.

Evidence Guide

Underpinning Skills

- Inspect, grade and handle painted products to requirements
- Start, adjust and shut down painting equipment
- Safely handle and mix paints and thinners.

Underpinning Knowledge

- Typical product and paint defects which require action to be taken.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information		•	
Communicating ideas and information	•		
Planning and organising activities	•		
Working with others in teams	•		
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Description

This unit describes the work required to produce flakes from logs/chips whilst monitoring and maintaining the flow of production and changing flaker blades as required.

1 Start equipment and produce flakes

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) Machinery and transfer system start-up checks are carried out to organisation standard procedures.
3) Other operators are informed of impending start-up.
4) Flaker, washing systems and transfer systems are started following organisation standard procedures.
5) Flake requirements and specifications are identified from orders or supervisor's instructions.
6) Flaker operation is monitored during processing of trial logs.
7) Flakes are visually assessed for size and appearance.
8) Screening effectiveness is confirmed for flakes produced.
9) Flaker and systems are adjusted to correct flake characteristics.
10) Transfer equipment, bins and hoppers are checked to ensure contamination of flakes is prevented.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Maintain production flow

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) Log supply is co-ordinated with log yard personnel.
3) Log and flake conveyors are regularly monitored for material flow problems and problems with transfer of material are resolved.
4) Logs on log deck and conveyors are visually assessed.
5) Logs unsuitable for flaking are removed from transfer system and reported to appropriate personnel for decision.
6) Processing sequence is planned for available logs to minimise jamming and maximise flow continuity.
7) Transfer systems are operated to feed logs to planned sequence.
8) Transfer and flaker throat jams are cleared with minimum lost time.
9) Characteristics of blunt or damaged flaker blades are recognised and blade change initiated.
10) Flaking and transfer equipment condition is monitored and problems reported to supervisor or maintenance personnel promptly and fully.
11) Production and quality records are completed in accordance with organisation standard procedures.
12) Regular checks are made to ensure flakes conform to relevant organisation specifications.
13) Area around infeed is regularly cleared of debris in accordance with organisation procedures.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Change flaker blades

1) Occupational health and safety regulations are followed in accordance with organisation policy.
2) System is shut down and isolated following organisation standard procedures.
3) Blades are replaced in flaker to manufacturer's and organisation standard procedures.
4) Internal flaker faults are identified and reported to supervisor or maintenance personnel promptly and fully.
5) Records of blade changes are maintained.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Assessment covers sawlog quality, diameter, curvature, shape, species and contamination including bark, charcoal, steel, rocks, paint and plastic
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Start up flaking and transfer systems
- Assess logs over the full range of sizes, conditions and species that the mill will handle
- Process full range of log sizes, conditions and species that the mill will handle
- Change blades
- Prepare records of flake output and downtime which are clear and in accordance with organisation requirements
- Troubleshoot and resolve problems associated with a broad range of flaking conditions.

Underpinning Knowledge

- Method of monitoring blade condition and recognising blunt blades
- Organisation requirements and standards for retained bark.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Description

Includes accurate calculation of log weight on delivery of the logs.

1 Check, weigh and record loads

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Log species, size and quality acceptable for delivery are identified.
3) Trucks delivering loads are identified, documents checked and logs confirmed as suitable for delivery.
4) Problems identified with logs for delivery are referred to supervisor or senior log yard personnel.
5) Load height and stability are checked for compliance to organisation safety regulations.
6) Gross weight is measured using weigh bridge according to organisation standard procedures.
7) Truck tare weight is identified from existing records or need for weighing noted.
8) Truck tare weight is measured on departure using weigh bridge according to organisation standard procedures.
9) Nett weight is calculated and recorded with type of logs delivered as required by organisation standard procedures.
10) Confirmation of delivery record is obtained from truck driver.
11) Records of deliveries are summarised and provided to management and log yard personnel as required.
12) Communication with drivers and site personnel is maintained to ensure efficient log movement and personnel co-operation.

2 Direct truck for unloading

1) Trucks are directed to unloading areas appropriate to the logs delivered.
2) Log yard personnel are notified promptly of deliveries requiring unloading.
3) Truck movements are monitored to identify personnel on site.
4) Communication with drivers and site personnel is maintained to ensure efficient log movement and personnel co-operation.

Range of Variables

- Logs weighed may be hardwood or softwood
- Species recognised will cover full range delivered to the mill
- Occupational health and safety requirements include vehicle loading safety requirements and organisation safety policy.

Evidence Guide

Underpinning Skills

- Segregate logs on the basis of size, defects and species across the full range of features which the mill will encounter
- Weigh loads accurately
- Measure logs to organisation standards for accuracy
- Calculate and record log volumes or weights
- Maintain delivery records
- Identify: companies, personnel and trucks delivering logs, log yard layout and unloading areas.

Underpinning Knowledge

- Industry standard diameter ranges and length dimensions
- Companies, personnel and trucks delivering logs
- Log yard layout and unloading areas.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information	•		
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving problems			
Using technology			

FPI WPP 425 A Operate steam boiler

Description

Includes start-up, shut-down and operation activities for a steam boiler.

1 Start steam boiler

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Hazards and potential hazards in work area are identified and reported in accordance with statutory requirements and workplace procedures.
3) Prevention/control measures are selected in accordance with the hierarchy of hazard control.
4) Personal protective clothing and equipment is selected for use, ensuring statutory requirements and workplace procedures are followed.
5) Pre-operational safety checks of boiler are conducted in accordance with statutory requirements, manufacturer's recommendations and plant operating procedures.
6) Maintenance requirements are identified and reported in accordance with workplace procedures.
7) Decision to operate boiler is made in light of pre-operational checks and any outstanding maintenance requirements.
8) Start-up checks are conducted in accordance with organisation procedures.
9) Boiler is started and brought on-line safely in accordance with statutory requirements, manufacturer's recommendations and workplace procedures
10) Continued operation of boiler is assessed in light of checks, maintenance requirements and operating conditions.

2 Operate and monitor steam boiler

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Operational status and recent boiler performance is communicated clearly with others in the workplace, in accordance with workplace procedures.
3) Operating status of boiler is diagnosed from audio, visual and written information.
4) Operating log is maintained clearly and accurately, in accordance with statutory requirements and workplace procedures.
5) Boiler is operated in accordance with manufacturer's recommendation and organisation procedures.
6) Boiler operation and status is monitored in accordance with statutory requirements and workplace procedures.
7) Boiler is adjusted as a result of tests to meet manufacturer's and workplace criteria.
8) Boiler house chemicals are stored, recorded and handled in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
9) Fuel efficiency recordings/calculations are made to workplace procedures.
10) Adjustments are made to boiler control settings to maintain safe and efficient operations.
11) Maintenance requirements are identified and reported in accordance with workplace procedures.

3 Shut down and store steam boiler

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Boiler is shut down in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
3) Maintenance requirements are identified and reported in accordance with workplace procedures.
4) Condition of boiler is checked after operational shut-down has been completed to ensure equipment can be safely removed.
5) Boiler is prepared for inspection process in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
6) Boiler is cleaned internally and externally in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
7) Boiler valves and fittings are removed for inspection/maintenance in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
8) Mode of storage is identified for the boiler in accordance with storage time and conditions of storage.
9) Boiler is stored in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.

Range of Variables

- Scope of boiler operations may include: boiler liquid/vapour restricted to water/steam, type of fuel and fuel supply system, boiler may be operated in conjunction with other plant and operations
- Boiler operations and maintenance meet statutory requirements in the applicable state/territory.

Evidence Guide

Underpinning Skills

- Undertake pre-operational and start-up procedures
- Selection and use of personal protective clothing and equipment
- Undertake manufacturer's and workplace inspection procedures
- Identify maintenance requirements
- Implement the hierarchy of hazard control measures.

Underpinning Knowledge

- Boiler operation and related statutory requirements
- Safety requirements
- Current state/territory occupational health and safety legislation, standards and codes of practice
- Hierarchy of hazard control measures with elimination substitution, isolation and engineering control measures
- Pre-operational and start-up procedures
- Manufacturer's and workplace inspection procedures
- Workplace communication procedures.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

FPI WPP 428 A Saw products from continuous ply - advanced

Description

Includes planning for and setting up equipment and sawing products from continuous ply using a wide variety of saws.

1 Plan sawing process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Required sawn sizes and quantities are determined from orders or supervisor's instructions.
3) Board or cant sizes and cutting patterns are determined to produce finished boards in accordance with organisation standard practice.
4) Available material is identified, or where not available it is ordered in accordance with organisational procedures.
5) Material for sawing is evaluated taking account of all characteristics.
6) Equipment to be used for sawing process is selected in accordance with organisation standard procedures.
7) Planned cutting maximises volume recovery and efficient use of equipment.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Set up processing of boards

1) Occupational health and safety regulations, policies and precautions are followed.
2) Pre-start-up checks are completed on sawing and transfer equipment in accordance with organisation and manufacturer's procedures.
3) Equipment is started, checked and adjusted in accordance with organisation and manufacturer's procedures.
4) Saws, carriage and feeds are adjusted to suit sawing pattern selected.
5) Trial boards are produced by operating equipment in accordance with standard procedures.
6) Trial boards are checked and equipment adjusted to correct faults identified, in accordance with organisation standards.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Produce boards

1) Occupational health and safety regulations, policies and precautions are followed.
2) Material supply is co-ordinated with supervisor or other relevant personnel.
3) Saw bench is operated to produce boards without damage to sawn board or saw blade.
4) Off-cuts and rejected boards are directed for waste or recovery.
5) Sawn boards are supplied for order or directed for further processing requirements in accordance with planned schedule and sequence.
6) Defects in ply or sawing problems are recognised and necessary adjustments made.
7) Routine problems with transfer of material are investigated and resolved.
8) Production and quality records are completed in accordance with organisation standard procedures.
9) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisation procedures.
10) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Maintain sawing conditions

1) Occupational health and safety regulations, policies and precautions are followed.
2) Sawing feed rates and finish are evaluated considering sawn board size and ply condition.
3) Sawing conditions are adjusted to optimise feed rate and finish.
4) Cross-section dimensions of sawn boards are monitored with respect to standard sizes and tolerances.
5) Sawing process is adjusted to maintain accurate sizing.
6) Area around saw is regularly cleaned in accordance with organisation standard procedures.
7) Characteristics of blunt and damaged saw blade are recognised.
8) Saw blade is removed and replaced in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Boards are produced by sawing one or more from continuous ply at each pass or splitting a larger board into sections
- Evaluation of material includes size, defects and moisture content
- Equipment used is one or more of the following: simple saw benches necessitating significant manual handling of cants to more complex handling arrangements utilising conveyor systems to transfer and position material, circular or band saws, single and multiple blades
- Occupational health and safety requirements include protective clothing, manual handling, machine guarding and organisation safety policy.

Evidence Guide

Underpinning Skills

- Plan processing sizes and equipment
- Set up sawing equipment
- Produce boards at optimum volume, rate and finish quality while maintaining production flow
- Change saw blades
- Measure sawn dimensions with accuracy appropriate to tolerances.

Underpinning Knowledge

- Typical ply defects and sawing problems which require action to be taken
- Recognition methods for blunt saws
- Routine problem-solving approaches and demonstrating the ability to solve routine sawing and material transfer problems in simulated situations
- Industry standard cross-section and length dimensions and tolerances
- Sawing techniques and cutting patterns relevant to available equipment.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Plan and set up product assembly FPI WPP 429 A

Description

Includes planning for, setting up, and assembling the full range of products in preparation for transport.

1 Plan preparation of products

1) Number of products to be assembled and assembly details are determined from schedules, production orders and drawings.
2) Availability of pre-cut timber/board components and other hardware components is confirmed.
3) Construction plans and jig set-ups for unfamiliar designs are confirmed with supervisor.
4) Overall product size and number of joints is assessed and jig area, sections and layout planned.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Set up production jig

1) Occupational health and safety regulations, policies and precautions are followed.
2) Jig stands, location plates and clamps are positioned to suit product assembly drawing in accordance with organisation and jig manufacturer's procedures.
3) Adequate jig components are provided to accurately locate and support all assembly components.
4) Pre-cut components are checked for fit to assembly jig and jig adjusted.
5) Inaccurately cut components are identified and arrangements made to correct or replace them.
6) Jig is adjusted to provide design camber.
7) Minor problems with equipment or components are identified and resolved.
8) Major equipment faults are reported to supervisor or maintenance personnel.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Assemble and check products

1) Occupational health and safety regulations, policies and precautions are followed.
2) Components are aligned and clamped using jig and nail plates installed to complete assembly to organisation standard procedures.
3) Finished product is checked against order or drawing and organisation requirements.
4) Faults in finished assembly are analysed and jig adjusted to produce correct parts.
5) Finished product is braced as required to maintain strength and structure during packing and transport.
6) Consistency and conformance to specification are checked on further production samples in accordance with organisation standard procedures.
7) Production and quality records are maintained in accordance with standard procedures.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Plan product packing

1) Occupational health and safety regulations, policies and precautions are followed.
2) Strength and flexibility of assembly is assessed during removal from jig and necessary bracing changes made.
3) Stacking and strapping method for products is developed to provide strength and minimise damage during transport.
4) Stacked bundle sizes are consistent with weight which can be handled at delivery site.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Products assembled will be of one or more type(s) including pallets, crates and bearers
- Products assembled cover the full range of board types, surface finishes, hardware and assembly size – within the product type – which the organisation manufactures
- Equipment used may be: assembly jig, nail or staple gun, compressor or compressed air supply and nail plate press
- Occupational health and safety requirements include manual handling, use of hand and air operated tools, use of paint and protective clothing.

Evidence Guide

Underpinning Skills

- Interpret orders, drawings and instructions
- Set up jigs to the correct design
- Develop packing requirements.

Underpinning Knowledge

- Types of problems that occur
- Problem-solving approaches.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information	•		
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Trim/cut new panels to size FPI WPP 430 A

Description

Includes the use of manual or automatic saws and machines with one or more blades/cutters.

1 Plan and prepare for trimming

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Planned production quantities, sizes and thicknesses are obtained from schedules, orders or supervisor.
3) Cutting is planned to meet production requirements and to minimise set-ups.
4) Board to be trimmed is identified from stock and/or production process.
5) Board is assessed to determine cutting requirements.
6) Where computer-based equipment is used, the appropriate setting is selected in accordance with organisation guidelines and computer operation.
7) Equipment is adjusted to suit panel size, board thickness and condition in accordance with organisation standard procedures.
8) Start-up checks are completed and equipment started to organisation standard procedures and manufacturer's instructions.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Trim panels to size

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Panels cut are regularly checked for size and squareness to industry, organisation or specific order tolerances.
3) Panels are positioned to ensure all processing edge defects are removed.
4) Panels are cut to required finished sizes in planned sequence.
5) Trimmed edges are directed for waste or recovery.
6) Defective panels are identified and set aside for recutting or supervisor's decision.
7) Processing faults in panels are identified and reported to supervisor or other production personnel.
8) Production and quality records are completed in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain production flow

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Supply of board is co-ordinated with production or other personnel to minimise production downtime.
3) Trimmed panels are stacked for transport with each size separated in accordance with organisation requirements.
4) Panels or stacks are marked in accordance with organisation requirements
5) Stacks are transferred or movement requested to maintain safe and efficient working area.
6) Equipment faults are reported to supervisor or maintenance personnel in accordance with organisation standard procedures.
7) Area around equipment is regularly cleaned in accordance with organisation standard procedures.
8) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisation standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Maintain cutting conditions

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Condition of cut edge is regularly monitored against organisation standards for finish and necessary feed rate or other changes made.
3) Characteristics of blunt and damaged saw are recognised.
4) Saw blades are removed and replaced in accordance with organisation standard procedures.
5) Routine sawing problems are identified, investigated and resolved.
6) Area around saw is regularly cleaned in accordance with organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Panels are cut with rectangular sides
- Cutting may apply to individual or stacked panels
- Equipment adjustment includes blade/cutter position and speed, stops and feed rate
- Planning covers: sizes and thicknesses to be cut, number of panels to be cut together, individual cut sequence for each size
- Cutting equipment includes: all manually or automatically traversed trimming saws or machining cutters where cutting line and angle is controlled relative to panel guides and clamps, machines with one or more blades/cutters
- Visual assessment will cover: board type including laminated veneer, plywood, particle board, fibreboard and medium density fibreboard as produced, thickness and number of plies when applicable, moisture content and parameters affecting cutting rate and quality, applicable grading standards
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine isolation and machine guarding.

Evidence Guide

Underpinning Skills

- Visually assess a variety of panel samples
- Set up trimming process
- Cut full range of board produced within the organisation
- Change blades/cutters.

Underpinning Knowledge

- Cutting sequence and patterns
- Types of material and machine faults and appropriate actions
- Methods for recognising blunt blades
- Industry standard panel types, sizes, thicknesses and tolerances.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Produce veneer from debarked logs - advanced FPI WPP 431 A

Description

This unit describes the work required to plan for and set-up the peeling process, as well as to peel a range of thicknesses whilst monitoring and maintaining the flow of the operation.

1 Plan and set up peeling process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Peeling requirements are identified from schedules or supervisor's instructions.
3) Logs to be peeled are identified from supervisor's instructions or material loaded.
4) Logs are visually assessed.
5) Machine set-up is confirmed or adjusted to suit logs and veneer required in accordance with organisation standard procedures.
6) Lathe is shut down in accordance with statutory requirements, manufacturer's recommendations and workplace procedures.
7) Maintenance requirements are identified and reported in accordance with workplace procedures.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Peel veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Logs are loaded onto infeed and size and condition confirmed as acceptable for processing.
3) Drive dogs are placed to maximise available veneer.
4) Controls are operated to peel log in accordance with organisation procedures and manufacturer's instructions.
5) Logs are peeled of waste product in accordance with organisation requirements.
6) Useable veneer peeling process is initiated to optimise veneer recovery and grading process.
7) Machine speed and controls are continually adjusted to suit wood characteristics and peeling process.
8) Log support is introduced to maintain thickness variation within organisation tolerances.
9) Core of log is discarded at minimum size or when peel quality is unacceptable.
10) Area around lathe is regularly cleared of chips and dust.
11) Routine problems are investigated and resolved.
12) Production and quality records are maintained in accordance with organisation requirements.
13) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain peeling process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Supply of logs is co-ordinated with other personnel to minimise production downtime.
3) Cutting and grading of peeled veneer are co-ordinated with other personnel to minimise production downtime.
4) Peeling rates and finish are evaluated considering log characteristics, timber species and veneer thickness.
5) Equipment adjustments are made to optimise production output and finish quality.
6) Veneer thickness and consistency are monitored with respect to standard sizes and tolerances.
7) Peeling process is adjusted to maintain accurate sizing.
8) Problems with production flow are investigated and resolved.
9) Maintenance requirements are identified and reported in accordance with workplace procedures.
10) Characteristics of blunt and damaged blade are recognised.
11) Blade is removed and replaced in accordance with organisation standard procedures.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Logs peeled will cover the full range of log species, size, quality and moisture content normally used by the organisation
- Equipment used is specialised peeling lathe
- Thickness of veneer will cover the full range produced by the organisation
- Visual assessment of logs covers species, size, shape, curvature, defects and moisture content
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine guards and organisation safety policy.

Evidence Guide

Underpinning Skills

- Set up lathe consistent with log condition
- Peel full range of logs
- Maximise recovery consistent with veneer quality
- Adjust equipment to required settings
- Visually assess logs and veneer
- Change blade.

Underpinning Knowledge

- Method of recognising blunt blades
- Required machine adjustments and associated effects on veneer and production
- Standard veneer grades and thicknesses.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Produce veneer from debarked logs - advanced FPI WPP 431 A

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities		•	
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Laminate or veneer board surfaces - advanced FPI WPP 432 A

Description

This unit describes the work required to plan for and set up the application process, as well as ensuring production to the specified quality standards of the organisation.

1 Plan and set up application process

1) Occupational health and safety regulations, policies and precautions are followed.
2) Production requirements including panels, laminates/veneers and volumes are identified from orders and supervisor's instructions.
3) Stock of panels and laminate/veneer to meet schedule is confirmed or ordered in accordance with organisation procedures.
4) Application process is planned and sequenced to minimise set-ups and changeovers.
5) Equipment is set up in accordance with applicable standards to suit scheduled material and size.
6) Trimming/machining process is planned and appropriate knives/cutters set in accordance with supervisor's instructions and organisation standard procedures.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Maintain production quality and flow

1) Occupational health and safety regulations, policies and precautions are followed.
2) Supply of panels and laminate/veneer, and movement of finished panels is co-ordinated to maintain continuity of production.
3) Panel size, panel thickness and laminate/veneer changes are planned in accordance with schedule requirements.
4) Testing of finished panels is co-ordinated and results interpreted.
5) Production output is monitored against standard rates and reasons for discrepancies investigated and resolved.
6) Output quality is monitored against organisation standards and reasons for discrepancies investigated and resolved.
7) Processes are adjusted to maintain trim tolerances and surface finish requirements.
8) Blades/cutters are changed, set or reset in accordance with organisation standard procedures.
9) Simple sharpening or dressing processes are completed for blades/cutters in accordance with organisation requirements.
10) Assistance is provided to supervisor or maintenance personnel to resolve equipment faults.
11) Production logs are completed for equipment in accordance with organisation requirements.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Standard setting procedures will include organisation standard procedures and equipment manufacturer's instructions
- Laminate/veneer may be supplied in sheets or continuous rolls
- Set-up includes adjustments for panel size, panel thickness, laminate/veneer type, glue application and finishing processes
- Trimming/machining includes cutting to square edge or bevel
- Testing includes glue weight and laminate/veneer bond strength
- Trimming/machining equipment may include: rotating knives or machining cutters
- Occupational health and safety requirements include manual handling, use of safety equipment, dealing with hazardous substances, operation of equipment and machine guarding.

Evidence Guide

Underpinning Skills

- Maintain application at optimum rate and finish quality
- Maintain gluing processes within required specifications
- Set up and sharpen blades or fixed cutters
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Typical operating problems which require action to be taken
- Typical edge defects and machining problems which require action to be taken
- Routine problem-solving approaches and demonstrating the ability to solve routine machining problems in simulated situations
- Industry standard panel sizes and laminate/veneer terminology.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information	•		
Planning and organising activities		•	
Working with others in teams	•		
Using mathematical ideas and techniques		•	
Solving problems	•		
Using technology	•		

Press laminated ply FPI WPP 433 A

Description

Includes the operation of both hot and cold presses as well as coordinating their combined operation.

1 Prepare for press operation

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Operational status of hot press and cold press is determined from log book, previous operator and instrumentation.
3) Production requirements including ply types, sizes and overlays are determined from schedule and supervisor's instructions.
4) Start-up checks are completed to organisation standard procedures.
5) Equipment is started and brought to operating condition.
6) Cycle times, pressures, temperatures and product parameters are set for production requirements.
7) Production, availability and condition of prepared ply is determined.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Run and monitor cold press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Assembled ply is assessed before loading and assembly returned for reworking or necessary press conditions changed.
3) Assembled ply is stacked to organisation requirements for height or number and squareness.
4) Cold press is operated to press boards according to organisation standard procedures.
5) Press condition is regularly monitored to confirm operation to organisation standards.
6) Press cycle time is adjusted to meet production requirements and correct processing conditions.
7) Unload/load cycles are completed with minimal downtime.
8) Cold pressed and finished ply is regularly assessed and changes to assembly and pressing processes co-ordinated to make necessary changes.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Run and monitor hot press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Prepared ply is assessed and ply assembly is returned for reworking, or necessary press conditions are changed.
3) Prepared ply is loaded to organisation requirements.
4) Hot press is operated to press boards according to organisation standard procedures.
5) Press condition is regularly monitored to confirm operation in accordance with organisation procedures.
6) Press cycle time, temperature and pressure are adjusted to meet production requirements and correct processing conditions.
7) Unload/load cycles are completed with minimal downtime.
8) Finished ply is regularly assessed and changes to glue application, assembly and press set-up co-ordinated to make necessary changes.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Unload and load hot press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Press is opened in accordance with standard procedures.
3) Ply and plates are separated and removed.
4) Ply is loaded into transport or storage racks for cooling in accordance with organisation requirements.
5) Ply or racks are marked to organisation standard procedure.
6) Plate condition is monitored during unloading and damaged plates removed for repair.
7) Plates are cleaned and sprayed with release agent in accordance with organisation standards.
8) Assembled ply, plates and overlay panels are stacked in press to organisation requirements for height or number and squareness.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

5 Co-ordinate combined press operation

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Availability and tack level of assembled ply is monitored and changes to preparation and press operations made to optimise production.
3) Supply and movement of plates and transport requirements are controlled to minimise downtime.
4) Production and quality records are completed in accordance with organisation standards.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Monitoring of press operation includes temperature, steam pressure, load and cycle time
- Assessment of production conditions include glue application, pre-press delays and ambient temperature
- Assessment of assembled ply will cover tack level, glue transfer, grip and moisture content
- Assessment of finished ply covers thickness, thickness distribution, alignment of veneer, bond strength, ply adhesion, foreign material and overall visual appearance.

Evidence Guide

Underpinning Skills

- Start and operate presses
- Monitor and maintain processing conditions
- Load and unload ply in required cycle times
- Assess ply and interpret test results
- Maintain records
- Co-ordinate press operations.

Underpinning Knowledge

- Typical problems encountered with ply, equipment and processing.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Immunise veneer FPI WPP 434 A

Description

This unit describes the work required to plan for the immunisation process, prepare the chemicals, and treat and pack the veneer.

1 Plan immunisation process

1) Veneer sizes to be immunised and treatment specifications are identified from orders or supervisor's instructions.
2) Veneer panels available for treatment are identified.
3) Veneer to be treated is assessed in accordance with organisation standard procedures.
4) Appropriate treatment times and solutions are selected, according to organisation procedures.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Prepare chemicals for treatment

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Type and quantity of solutions to be prepared are determined from planned treatment cycles.
3) Chemicals are handled in accordance with organisation requirements, supervisor's instructions and material safety data sheets.
4) Ancillary equipment used for addition of solution chemicals is operated in accordance with organisation and manufacturer's procedures.
5) Solutions are prepared in accordance with organisation standard procedures.
6) Samples of solution are regularly taken for testing in accordance with organisation standard procedures.
7) System leakages and other problems are corrected or reported to relevant personnel.
8) Production and quality records for solution mixed and chemicals used are completed in accordance with standard procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Treat veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Load/unload cycles are planned to provide selected treatment and drainage time for veneer.
3) Veneer panels are loaded into solution tank in accordance with organisation standard procedures.
4) Veneer panels are unloaded from solution tank and moved to drainage area with minimal delay.
5) Transfer equipment is operated in accordance with organisation and manufacturer's procedures.
6) Draining of treated panels is monitored to ensure even drying.
7) Visual assessment of treated veneer is routinely completed and used to modify treatment process in accordance with organisation standard procedures.
8) Routine problems with treatment or transfer of panels are identified and resolved.
9) Treatment area is regularly cleaned in accordance with organisation and process requirements.
10) Production and quality records are completed in accordance with organisation standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

4 Pack treated veneer

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Dried veneer panels are packed in accordance with organisation standard procedures.
3) Packs are marked for identification in accordance with organisation standard procedures.
4) Records are maintained to ensure traceability of treatment process.
5) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Assessment of untreated veneer includes thickness, moisture content and grain/density likely to affect solution take-up
- Visual assessment of treated veneer covers penetration and chemical retention
- Occupational health and safety requirements include manual handling, protective clothing, elimination of hazards, machine guarding, dealing with hazardous substances and organisation safety policy.

Evidence Guide

Underpinning Skills

- Assess treated and untreated veneer
- Plan effective immunisation processes
- Prepare chemical solutions
- Monitor and adjust treatment cycles
- Pack treated panels
- Maintain records.

Underpinning Knowledge

- Typical treatment processes and problems and actions required
- Veneer characteristics and their effect on treatment processes
- Occupational health and safety requirements.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities		•	
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Dry material in a flash dryer FPI WPP 440 A

Description

This unit describes the competency required to dry material in a drier which is of continuous operating type using a combination of steam, heated air or heated gas to transport fibre through the flash drying process and may be a single or double stage drier.

1 Monitor and control drier conditions

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Temperatures and humidity levels are routinely checked and temperatures adjusted according to manufacturers recommendations and organisation standard procedures.
3) Records of drier conditions and adjustments are maintained to organisation standard procedure.
4) Drying cycles are identified and schedules for infeed and unloading of drier established to organisation standard procedures.
5) Routine checks of ancillary equipment are completed in accordance with organisation standard procedures.
6) Alarms triggered by drier monitoring equipment are checked promptly, problems confirmed and appropriate corrective procedures followed.
7) Production and quality records are completed in accordance with organisation standard.
8) Any problems with drier operation are identified and rectified, where possible, or referred to supervisor or maintenance personnel and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

2 Process material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material considered inappropriate for drying or unsuitable for current drying cycle is dealt with in accordance with supervisor's instructions.
3) Material is fed into drier at a rate and temperature consistent with production requirements and drying capacity.
4) Feed rate to drier is maintained to maximise output consistent with organisation standards.
5) Infeed and outfeed storage levels are monitored and movement of fibre co-ordinated with other operators to avoid interruptions to drying process
6) Any fires that exist are detected, located and emergency procedures followed in accordance with manufacturers recommendations and organisation standard procedures.
7) Filters, valves or system blockages are cleared to organisation standard procedures.
8) Production records are maintained in accordance with organisation standard procedures.
9) Fibre processing operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

3 Monitor drying of material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Processed material is visually assessed for quality of result in accordance with organisational guidelines.
3) Moisture levels in processed material are routinely checked and compared with anticipated levels according to organisation standard procedures.
4) Moisture levels are used to modify processing cycles according to organisation standard procedures.
5) Any problems with moisture reading variations are identified, rectified or reported to supervisor.
6) Moisture level records are maintained to organisation standard procedures.
7) Drier operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

Range of Variables

- Occupational health and safety and environmental requirements include housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and organisation safety and environmental policies
- Drier is of continuous operating type using a combination of steam, heated air or heated gas to transport material through the flash drying process and may be a single or double stage drying
- Changes in temperature and humidity, due to climatic/seasonal changes, may contribute to temperature loss or increase during and after the drying process
- Material is visually checked for: shives, colour, abnormalities.

Evidence Guide

Underpinning Skills

- Maintain drier conditions with minimal waste product or lost processing time
- Monitor feed rate and temperature within drying process
- Monitor processed material and adjust drying process accordingly
- Obtain accurate moisture readings
- Maintain records
- Check any triggered alarms, confirm problem and take corrective action
- Identify fires and potential fires and follow appropriate emergency procedures
- Conduct routine checks of ancillary equipment
- Identify and clear filters, valves or system blockages.

Underpinning Knowledge

- Drying process and problems, and actions required
- Occupational health and safety requirements
- Monitoring processes for drying operation
- Required records to be updated and kept
- Potential hazards relating to drying operation.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems			
Using technology		•	

Profile sand moulded strips FPI WPP 441 A

Description

Includes visual assessment and grading of profile sand moulded strips, as well as producing the profiled shoes and wheels for sanding.

1 Start up and shut down profile sander

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Job requirements for width of profile being run, thickness of profiled strips and quantities are obtained from supervisor or schedule.
3) Strips to be sanded are assessed according to organisation standard procedures on grading and quality.
4) Pre-start checks are conducted on equipment in accordance with organisation standard procedures and manufacturers instructions.
5) Sander machine is set up and adjusted to suit width and height of profile being run.
6) Sander heads and compensators are adjusted and aligned in accordance with organisation standard procedures to suit profile being sanded, allowing for wear on belts, shoes and wheels from previous run.
7) Sander and ancillary equipment is started in accordance with organisation standard procedures and manufacturers instructions.
8) Sanding medium is confirmed or changed to suit production requirements and product.
9) Sander and ancillary equipment are shutdown in accordance with organisation standard procedures.
10) Equipment faults are reported to supervisor or maintenance personnel.
11) Housekeeping in sander area is in accordance with occupational health and safety and organisation standards.
12) Communication with supervisor and other workers is maintained to ensure efficient workflow and co-ordination as well as personnel co-operation.
13) Production and quality records are completed in accordance with organisation procedures.

2 Profile sand moulded strips

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Initial strips are sanded and quality of sanding checked relative to organisation standards.
3) Adjustments are made to sander as required to optimise feed rate, thickness and finish.
4) Sander is operated to sand strips in accordance with organisation standard procedures.
5) Sander operation is continually monitored and changes to operating conditions investigated.
6) Product removal rates and surface finish are monitored against expected results and problems investigated.
7) Sanded strips are regularly assessed and graded to monitor sanding operation.
8) Characteristics of excessively worn sanding medium and damaged heads or compensators are detected.
9) Dust extraction equipment is regularly checked, cleaned and maintained in accordance with organisation standard procedures.
10) Area around sander is regularly cleaned as required by organisation standard housekeeping procedures.
11) Equipment faults are reported to supervisor or maintenance personnel.

2 Cont.

12) Production and quality records are completed in accordance with organisation procedures.

13) Communication with supervisor and other workers is maintained to ensure efficient workflow and co-ordination as well as personnel co-operation.

3 Change sanding medium

1) Occupational health and safety and environmental regulations, policies and precautions are followed.

2) Need for sanding medium change is identified.

3) Sander is isolated to organisation standard procedures and manufacturers instructions.

4) Appropriate components are removed in accordance with organisation standard procedures and manufacturers instructions.

5) Sanding medium and components are assessed and need for change to operating conditions identified.

6) Sanding medium and other components are renewed as necessary in accordance with organisation procedures to restore sanding conditions.

7) Components are re-installed and organisation standard set up procedures repeated.

8) Communication with supervisor and other workers is maintained to ensure efficient workflow and co-ordination as well as personnel co-operation.

9) Production and quality records are completed in accordance with organisation procedures.

4 Make profiled shoes and wheels

1) Occupational health and safety and environmental regulations, policies and precautions are followed.

2) Identify quantities and types of profiled shoes and wheels required from current stock and production requirements.

3) Manufacture wheels and shoes to organisation standard procedure.

4) Production and quality records are maintained to organisation standard procedure.

5) Wheels and shoes are labelled with product and profile type and stored to organisation standard procedures.

6) Tool room is cleaned to organisation housekeeping standards after production of shoes and wheels.

7) Equipment faults are reported to supervisor or maintenance personnel.

8) Communication with supervisor and other workers is maintained to ensure efficient workflow and co-ordination as well as personnel co-operation.

Range of Variables

- Occupational health and safety and environmental requirements including housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and organisation safety and environmental policies
- Pre-start checks include: fences and conveyors suiting width of product, roller conveyors on infeed and outfeed, listen for any new noises, look for any signs of wear, reject flap, ensuring panel view screens are consistent with line speeds and outfeed times required by product parameters
- Sanding medium change may be needed for the following reasons: predetermined number of strips to be sanded, deterioration in surface quality and foreign matter damaging sanding medium, specific customer requirements
- Assessment of sanding medium covers damage, foreign matter, excessive wear rate and clogging
- Sanded product assessment and grading covers: profile conformity to organisation and industry specifications, surface quality and finish, sanding uniformity across profile.

Evidence Guide

Underpinning Skills

- Profile sand moulded strips to surface finish and profile thickness requirements
- Judge quality of output and adjust machine as required
- Recognise and respond to sanding medium and components wear
- Make profiled shoes and wheels
- Start-up and shut down sander and components.

Underpinning Knowledge

- Sanding process and sanding medium grades and applications
- Occupational health and safety requirements
- Sander start-up and shut down procedures.

.Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Form and press board - continuous press FPI WPP 442 A

Description

This unit describes the competency required to form and press board in a continuous process for the range of available board types.

1 Run and monitor continuous press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Defects in mat, board and/or bands are identified and rectified, removed or dumped.
3) Equipment is operated to press boards to organisation standard procedure.
4) Press conditions are regularly monitored to confirm operation according to organisation standard.
5) Production and quality records are completed in accordance with organisation standard.
6) Press line speed and/or temperatures are adjusted when required after evaluation of heat probe results.
7) Press operating conditions are regularly monitored and problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.
8) Thickness change requirements are identified from production schedule.
9) Pressed board is regularly assessed and changes to mat forming and press set-ups co-ordinated to make necessary adjustments.
10) Housekeeping in press area is in accordance with occupational health and safety and organisation standards.
11) Routine problems are investigated and resolved according to organisation standard.
12) Equipment faults are reported.
13) Results of tests are evaluated for implications and impact on production processes.
14) Action is taken based on results of tests in accordance with organisation standards.

2 Start-up continuous forming line

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Production requirements are determined from production schedule.
3) Start-up checks are completed to organisation standard.
4) Equipment is started and brought to operating speed and production parameters as per process set ups.
5) Operational condition and set up of mat formers is checked to confirm mat condition.
6) Mat conditions to be checked including even mat forming, even cross panel density, ensuring no mat irregularities or variation between moisture meter and oven dry test results.
7) Problems that occur during start-up are rectified promptly or referred to supervisor, if appropriate.
8) Equipment faults are reported to supervisor or maintenance personnel.
9) Housekeeping in forming line area is in accordance with occupational health and safety and organisation standards.
10) Forming line operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

3 Start-up continuous press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Production requirements are determined from production schedule.
3) Start-up checks are completed to organisation requirements.
4) Equipment is started and brought to operating temperatures and production parameters as per process set ups.
5) Inspect the press for any unusual noises, oil leaks or band damage.
6) Equipment faults are reported to supervisor or maintenance personnel.
7) Housekeeping in pressing area is in accordance with occupational health and safety and organisation standards.
8) Press operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

4 Shut-down continuous forming line and press

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Ensure material is clear from mat formers, forming line and press prior to shutdown in accordance with organisation standard.
3) Housekeeping in forming and pressing area is in accordance with occupational health and safety and organisation standards.
4) Equipment faults are reported to supervisor or maintenance personnel.
5) Communication with supervisor, other operators and maintenance personnel to ensure co-ordination and personnel co-operation.

5 Change thickness/product/length on the run

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Planned forming sequence is followed according to organisation standard procedure.
3) System is operated manually or automatically to produce mat in accordance with organisation standard procedure.
4) Size changes are co-ordinated to minimise loss of time or material.
5) Changes in machine functioning are responded to and relevant operation adjusted.
6) Potential forming problems on thickness changes are identified, resolved and/or reported to supervisor or other relevant personnel.
7) Work area is regularly cleared of spillage according to organisation standard.
8) Production and quality records are kept in accordance with organisation standards and procedures.
9) Communication with supervisor and other workers is maintained to ensure efficient workflow, co-ordination and personnel co-operation.
10) Size changes and line speeds are planned to meet production schedules.
11) Product types or thicknesses are changed in accordance with organisation standard procedures.
12) Results of tests are evaluated for implications and impact on production processes.
13) Action is taken based on results of tests in accordance with organisation standard procedures.

Range of Variables

- Occupational health and safety and environmental requirements including housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and organisation safety and environmental policies
- Board pressed will cover a range of types available and may include standard, unsanded, high moisture resistant, sanded, range of sizes, thicknesses and grades
- Changes in temperature and humidity, due to climatic/seasonal changes, may contribute to temperature loss or increase during pressing
- Equipment/operating faults may include production blockages, mechanical breakages, electrical overloads and/or programming, mat tolerance, pre-press incline etc
- Start-up problems may include false alarms, belt tracking and uneven temperature
- Housekeeping for press start up includes: emptying and cleaning press oil trays, remove fibre build up and cleaning band lubrication slots
- Press area equipment faults may include: power failures, various safety alarms and mechanical failures
- Potential forming problems on thickness changes may include product blockages, incorrect mat forming, pre-press incline, incorrect pre-press pressures or stops, metal in mat, mat out of tolerance, moisture variation or double mat
- Ensuring no mat irregularities may include: clean scalping from pendistors.

Evidence Guide

Underpinning Skills

- Set up and operate press
- Monitor press variables (weight, moisture, temperature, heat probes and thickness)
- Meet required occupational health and safety, environmental and housekeeping standards
- Set up forming line parameters
- Verify product and size required from schedule
- Set up mat forming
- Calculate mat weight required for product where required
- Identify and react appropriately to out of specification product from sampling results.

Underpinning Skills (with regard to press start-up)

- Complete press start-up checks
- Interpret recipe and set program parameters accordingly
- Identify and rectify, where possible, any unusual noises, oil leaks or band damage
- Monitor press until operational parameters are met.

Underpinning Skills (with regard to shutdown of forming line and press)

- Follow shutdown procedures according to situation
- Make decisions regarding shutdown of equipment
- Identify various alarms and rectify
- Accurately record downtime giving full description and justification of shutdown/downtime.

Underpinning Skills (with regard to changes on the run)

- Co-ordinate all changes to minimise loss of product or down time
- Understand process flow and mat forming principles
- Identify various alarms and rectify
- Identify saw blade condition and change if necessary.

Underpinning Knowledge

- Routine problem solving approaches and demonstrating the ability to solve problems in simulated situations
- Relevant organisation procedures and work instructions required
- The continuous pressing and forming process (including production/mechanical and technical knowledge)
- Cooling and stacking
- Storage systems
- High moisture resistant dye system including cleaning/maintenance
- Radio frequency heater operation, where appropriate.

Underpinning Knowledge (relating to forming line start-up)

- Operating system and procedures
- Fibre size
- Identification of high moisture resistant
- Pendistor air flows
- Explosion hatches and fibre transportation.

Underpinning Knowledge (with regard to press start-up)

- Press control panel operation
- Press lubrication systems
- Press safety
- Source of press alarm locations.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving Problems	•		
Using technology		•	

Vacuum paint moulded strips FPI WPP 443 A

Description

This unit describes the competency required to paint profile moulded strips in a vacuum painter which is of continuous type using roller conveyors to transport strips through an attached vacuum coating process. Competency is also required to dry water based primed strips in driers which are of continuous operating type using conveyors to transport strips through stable heated zones.

1 Set up and operate vacuum coating lines

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Production requirements are identified from supervisor's instructions or production schedules.
3) Painting equipment is set up according to organisation standard procedures.
4) Paint viscosity is adjusted to organisation standard procedures.
5) Wet film thickness is checked to organisation standard procedures.
6) Adjustments to operation are made in response to painting results.
7) Paint templates are manufactured to organisation standard procedures and product requirements.
8) Vacuum coater is run according to recipes, manufacturers recommendations and organisation standard procedures.
9) Quality inspections are carried out to organisation standard procedures throughout painting process.
10) Viscosity of paint in reservoirs is regularly monitored and corrections made or investigated.
11) Routine painting problems and equipment faults are investigated and resolved.
12) Ensure paint is readily available at all times.
13) Ensure materials are available for next product run in advance to maintain efficient workflow and minimisation of downtime.
14) Ensure all test equipment is calibrated to organisation standard procedures.
15) Production and quality records are completed in accordance with organisation standards.
16) Housekeeping in paint line areas is in accordance with occupational health and safety, environmental and organisation standards.
17) Communication with supervisor and other workers is maintained to ensure efficient workflow and co-ordination as well as personnel co-operation.

2 Operate and monitor paint drying ovens

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Ovens are started and brought to operating temperature as per manufacturer’s instructions and organisation standard procedures.
3) Oven drying processes are monitored according to organisation standard procedures.
4) Adjustments to drying operations are made in response to paint adhesion test results as per organisation standard procedures.
5) Housekeeping in oven drying areas is in accordance with occupational health and safety and organisation standard procedures.

3 Operate and monitor de-nibber

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Ancillary equipment is checked and set up prior to starting of de-nibbing line.
3) De-nibbing machine is started or set up according to organisation standard procedures.
4) Appropriate profile flap brushes are selected and installed as per organisation standard procedures.
5) Ensure printer is operational with correct program or size selected, where appropriate.
6) Run sample strips through de-nibbing process and assess to organisation quality standards.
7) Adjustments to de-nibbing process are made according to results of sample strips.
8) Operate and monitor de-nibbing machine according to organisation standard procedures.
9) Routine de-nibbing problems and equipment faults are investigated and resolved.
10) Ensure profile flap brushes are available at all times and reasonable stock is maintained.
11) Housekeeping in de-nibbing area is maintained to occupational health and safety and organisation standards.
12) Ensure materials are available for next product run to maintain efficient workflow and minimisation of downtime.

4 Shutdown of painting and drying processes

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Paint reservoirs are emptied and cleaned in accordance with organisation standard procedures.
3) Cleaning agent is added to reservoirs and flushed through system.
4) Paint and vacuum pumps and ancillary equipment are switched off in accordance with organisation standard procedures.
5) Paint head exit roller conveyors are cleaned in accordance with organisation standard procedures.
6) Paint drying ovens are shut down in accordance with organisation standard procedures.
7) De-nibbing machine is shut down in accordance with organisation standard procedures.
8) De-nibbing machine is cleaned in accordance with organisation standard procedures.
9) Printer is cleaned and shut down in accordance with organisation standard procedures, where appropriate.
10) Waste-water disposal is carried out in accordance with organisation standard procedures.

Range of Variables

- Occupational health and safety and environmental requirements including housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding, inflammable material and organisation safety and environmental policies
- Painter is of continuous type using roller conveyors to transport profile moulded strips through a vacuum coating process
- Drier is of continuous operating type using conveyors to transport water base primed moulded strips through stable heated zones
- Painting equipment includes the following: guide rollers, infeed and outfeed, paint head guide rollers, pressure drive wheels, air regulator settings, templates, conveyors, fence lines, paint flow controllers
- Vacuum coating covers first and second coating machines with quality checks conducted throughout process as per organisation standard procedures.
- Painted products are inspected for paint defects, contamination and coating defects
- Paint surface is checked for incomplete cover, appearance (e.g. “orange peel”), base product faults, contamination and coating defects
- Line speed may need adjustment to match quality requirements
- Waste-water disposal may involve: pumping waste into clearly labelled drums, on site disposal using a waste-water management system, off site disposal by licensed waste removalist, reporting of spills etc. to relevant authority e.g. EPA
- Output requirements may include use of a stacker, where appropriate
- Printing details on product may not always be required or available
- Profile sanding wheels include a range of grades, sizes and densities.

Evidence Guide

Underpinning Skills

- Paint, dry and de-nib products at optimum rate and finish quality
- Inspect, grade and handle painted products to requirements
- Set up, adjust and shut down painting, drying and de-nibbing equipment
- Make effective adjustments in response to paint finish
- Safe handling and disposal of paint and paint by-products
- Make paint templates
- Manufacture sanding profile wheels
- Plan and co-ordinate product change
- Identify and react to potential line breakdowns and machinery wear.

Underpinning Knowledge

- Typical product requirements, paint defects and painting problems and indicate actions to resolve them
- Waste-water disposal procedures
- De-nibbing process.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Operate heat/energy plant FPI WPP 444 A

Description

This unit describes the work required to start up, operate and shut down a heat/energy plant whilst monitoring the flow of the operation.

1 Start up heat/energy plant

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Appropriate pre-start checks completed to organisation standard procedures.
3) Equipment is started and brought to operating temperature and production parameters as per process set ups.
4) Equipment faults are reported to supervisor or maintenance personnel.
5) Housekeeping in heat/energy plant is in accordance with occupational health and safety and organisation standards.
6) Heat/energy plant operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

2 Run and monitor heat/energy plant

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Equipment is operated to organisation standard procedures.
3) Heat/energy plant conditions are regularly monitored to confirm operation to organisation standard procedures.
4) Production and quality records are completed in accordance with organisation standard procedures.
5) Appropriate oil pumps are selected and changed when necessary as per organisation standard procedures and manufacturers recommendations.
6) Heat/energy plant temperatures are adjusted when required according to organisation standard procedures to ensure safe and efficient operations.
7) Equipment faults are reported to supervisor or maintenance personnel.
8) Housekeeping in heat/energy plant is in accordance with occupational health and safety and organisation standards.
9) Heat/energy plant operating conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

3 Shut down heat/energy plant

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Shutdown of heat/energy plant under controlled or planned circumstances is conducted according to organisation standard procedures.
3) Emergency shutdown of heat/energy plant when required is conducted according to organisation standard procedures.
4) Equipment faults are reported to supervisor or maintenance personnel.
5) Heat/energy plant conditions are regularly monitored, problems investigated and communicated to supervisor and other workers to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation.

Range of Variables

- Occupational health and safety and environmental requirements including housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and organisation safety and environmental policies
- Pre-start checks may include: thermal oil heating systems, gas burners, dust systems (including extraction), solid fuel systems, steam generators
- Heat/energy plant operating conditions may include: fuel intake, water intake, oil flow (e.g. pump operation), hydraulic systems, blowing down steam generators.

Evidence Guide

Underpinning Skills

- Start up, shutdown and operate heat/energy plant
- Monitor and maintain heat/energy plant conditions
- Maintain records and logbook accurately
- Co-ordinate heat/energy plant operation with overall production line
- Analyse and rectify problems in a simulated situation.

Underpinning Knowledge

- Typical problems encountered with heat/energy plant,
- The detail of heat/energy plant process and operation.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology			

Description

Includes the operation of the driers to dry flake and the operation and monitoring of all ancillary equipment.

1 Monitor and control drier conditions

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Start-up checks of drier system and ancillary equipment are conducted in accordance with organisation standards.
3) Start-up and shut down of drier and ancillary systems is completed in accordance with organisation standards.
4) Furnace is lit in accordance with organisation standards.
5) Drier temperature levels are routinely checked and maintained to organisation standard procedures.
6) Drier temperature levels are reset to correct operating conditions in accordance with organisation standards.
7) Records of drier conditions and adjustments are maintained to organisation requirements.
8) Ancillary equipment is operated and monitored in accordance with organisation procedures.
9) Hot oil system is monitored and maintained to ensure press temperature in accordance with organisation standards.
10) Problems with drier operation are identified and resolved where possible, or reported to supervisor/leading hand or maintenance.
11) Alarms triggered by drier monitoring equipment are checked promptly, problems confirmed and emergency procedures followed.
12) Work area is regularly cleaned in accordance with organisation standards.
13) Routine maintenance day cleaning of drier is carried out in accordance with organisation standards.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Process material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material considered inappropriate for drying is dumped and referred to supervisor, as required.
3) Material is fed into drier at a rate consistent with production requirements and drying capacity.
4) Material is conveyed according to organisation standard procedure.
5) Feed rate to drier is maintained to maximise output consistent with organisation standards.
6) Material assessed for quality after drying.
7) Infeed and outfeed storage levels are monitored and movement of material co-ordinated with other operators to avoid interruptions to drying or pressing process.
8) Fires are identified and emergency procedures followed in accordance with statutory and organisation requirements.
9) Conveyor or system blockages are cleared to organisation standard procedures.
10) Production records are maintained in accordance with organisation standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
12) Material is processed in accordance with organisational guidelines and procedures.

3 Monitor drying of material

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Processed material is visually assessed.
3) Moisture levels in processed material are routinely checked and compared with anticipated levels according to organisation standard procedures.
4) Moisture levels are used to modify temperature and/or throughput according to organisation standard procedures.
5) Problems with moisture readings are identified and reported to supervisor or maintenance.
6) Moisture level records are maintained to organisation requirements.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Ancillary equipment includes, dry and wet silo storage, fuel feed system, combustors, oil heating system, dust silos, emergency generator, effluent system, sluice system, recirculated air system, furnace system, fire control and suppression systems (grecon, graviner, spray system), knife mill systems, wet gisiger system and infeed system
- Monitoring of ancillary equipment includes oil levels and temperatures of drier and furnace, conveyors and chains, silo levels, furnace fuel levels, water levels, knife mill system alarms and effluent levels
- Drier is of the continuous operating type using conveyors and blowers to transport material through stable heated zones
- Visual assessment of processed material covers scorching, flake quality and contamination likely to affect further processes
- Monitoring and control covers all processing areas and systems and is done using Scan, TDC and mimic boards
- Occupational health and safety requirements include housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, working in high temperature environments, isolation procedures and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Maintain drier conditions with minimal lost processing time
- Monitor drying process
- Monitor processed material
- Obtain accurate moisture readings
- Maintain records
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Typical drying processes and problems and actions required
- Drying principles, including combustion, effects on wood and air circulation in the drier system
- Occupational health and safety and environmental standards required
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Description

Includes the trimming, marking and grading of board in the laminating area.

1 Prepare to trim, mark and grade laminated board

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Grade requirements are determined according to organisation standards and press programs.
3) Required finished panel sizes, types and quantities are identified from the schedule/program and pack labels are printed.
4) Trimming process and alignment is set-up and checked to ensure correct operation as per organisation standards.
5) Cutting devices are set-up and checked to ensure correct operation according to organisation standards, when appropriate.
6) Printer system is set-up and checked to ensure boards are marked correctly according to schedule information.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Trim, mark and grade laminated board

1) Occupational health and safety and environmental policies and procedures are followed.
2) Board edges are trimmed according to organisation standards.
3) Boards are edge printed or marked according to organisation standards.
4) Boards are systematically visually assessed against organisation grading standards.
5) Defects caused by previous operations are identified and promptly reported to relevant personnel.
6) Sub-standard panels are rejected and placed in appropriate area.
7) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain production flow

1) Occupational health and safety and environmental policies and procedures are followed.
2) Trimmers and alignment are monitored to ensure edges are trimmed to organisation standards.
3) Characteristics of blunt trimmers are identified and trimmers replaced in accordance with organisation standards.
4) Panel edge identification equipment is monitored, changed and cleaned as required.
5) Optimal flow is planned with other operators to ensure minimal down-time.
6) Conveyors are regularly monitored for material flow problems.
7) Problems and equipment faults are reported to supervisor promptly and fully.
8) Supplies of marking ink are maintained.
9) Storage areas are regularly cleared throughout the process.
10) Production records are maintained as per organisation standards.
11) Communication with other production line personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Material graded includes laminated board of various colours and textures, substrate types and dimensions
- Equipment operation includes manual or automatic mode
- Defect assessment and quality standards determined will be the full range applicable to the organisation
- Assessment of material includes: raw board and treated paper quality, process faults, number, frequency and type of defects
- Occupational health and safety and environmental requirements include housekeeping, incident reporting, protective clothing, manual handling, elimination of hazards, isolation procedures, machine guarding and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Set-up trimming, aligning and marking equipment for organisation board sizes and thicknesses
- Identify board characteristics and defects
- Identify panel sizes and thicknesses
- Identify processing problems from finished panels
- Grade within organisation standards
- Interpret production program information
- Communicate effectively with others in associated production areas
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Routine material transfer problems and approach used to resolve them
- Methods for monitoring trimmer condition and recognising blunt/damaged/misaligned trimmers
- Industry standard sizes, thicknesses and tolerance
- Occupational health and safety and environmental standards
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology	•		

Classify flake FPI WPP 448 A

Description

Includes the operation of the flake classification system and operation and monitoring of all ancillary equipment to separate flake.

1 Start up and shut down classifying system

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Machine start-up checks are carried out to organisation standard procedures.
3) Flake is assessed and problems reported according to organisation standards.
4) Classifying system is started following organisation standard procedures.
5) Screens and feed systems are adjusted to separate flake into required sizes.
6) Availability of sufficient storage space is ensured.
7) Classifying system is shut down following organisation standard procedure.
8) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Classify flake

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Equipment is operated to classify flake into size categories in accordance with organisation procedures.
3) Checks are regularly made to ensure flake is separated to organisation requirements and necessary adjustments made.
4) Flake flow, usage and silo levels are monitored and action taken, to ensure optimal production of each size.
5) Blockages are immediately cleared using organisation procedures.
6) Output is directed to appropriate silos.
7) Faults requiring emergency shut-down are detected and appropriate action taken.
8) Equipment faults are reported to supervisor or maintenance personnel promptly and fully.
9) Cleaning procedures which prevent build up are regularly carried out in accordance with organisation requirements.
10) Production and quality records are kept in accordance with organisation standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Maintain classification process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Characteristics of blunt and damaged grinding elements are recognised.
3) Grinding elements are removed and replaced in accordance with organisation standard procedures.
4) Area around classifiers is regularly cleaned in accordance with organisation standard procedures.
5) Routine classification problems are identified, investigated and resolved.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Flake includes all wood raw materials and may include wood flake, planer shavings, sawdust, reuse and shredded board
- Flake will be classified into the following sizes, core fraction, surface fraction, overs and dust
- Flake assessment covers screen fractions, contamination and changes to dust content levels
- Equipment used may include flake tower, screens, sifter,
- Grinding elements may include, screens, hammers and blades
- System parts to be monitored may include, screens, hammers, blades, feed systems (blow lines/drag chains), sifter, silo levels, secondary processing unit, fire prevention systems
- Occupational health and safety and environmental requirements include housekeeping, incident reporting, manual handling, use of safety equipment, isolation procedures, operation of equipment, machine guarding and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Set up and shut down operating system
- Assess quality of flake
- Assess quality of flake separation process
- Change grinding elements or screens
- Respond to problems and take corrective action
- Maintain appropriate production and quality records
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Methods of recognising blunt or damaged grinding elements
- Types of machine faults and appropriate actions
- When and why the secondary processing unit is used
- Operating system and procedures
- Standard flake sizes and their role in board making
- Occupational health and safety and environmental standards
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving Problems			
Using technology		•	

Laminate board - advanced FPI WPP 449 A

Description

This unit includes the monitoring of the laminating press and ancillary equipment.

1 Set up and monitor cutting process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Required board sizes are identified from schedules.
3) Cross cut and/or rip saw is set up to cut correct board sizes in accordance with schedule requirements.
4) Blunt or damaged saw blades are identified and changed as required.
5) Cutting process is monitored and problems identified, investigated and resolved.
6) Equipment faults are recognised and reported to supervisor/team leader or maintenance personnel.
7) Communication with supervisor/team leader and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.
8) Treated paper is stored in accordance with organisational guidelines.

2 Monitor the application process

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Material shortfall is identified and corrective action is taken to minimise disruption to the process.
3) Production quality and output is monitored against organisation standards and reasons for discrepancies are investigated and resolved.
4) Experience/knowledge of machine operations are applied to identify any potential problems, which are reported to supervisor or maintenance personnel.
5) Machine problems are diagnosed and analysed and maintenance personnel are assisted in identifying any existing and potential problems.
6) Communication with supervisor/team leader and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Boards may be cut after pressing
- Machine operations includes LPM press lines and includes the press hydraulic system, hot oil system, and dust extraction system
- Set ups include adjustments for board size, board thickness and finishing processes
- Occupational health and safety requirements include housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, operation of equipment, machine isolation, machine guarding and organisation safety and environmental policies.

Evidence Guide

Underpinning Skills

- Cut boards to scheduled requirements
- Anticipate and act on material shortfalls to minimise disruption to the process
- Anticipate and resolve non-routine operating and product quality problems
- Schedule preventative maintenance in association with maintenance personnel
- Communicate effectively with others in associated production areas
- Meet required occupational health and safety, environmental and housekeeping standards.

Underpinning Knowledge

- Types of rawboard and treated paper defects
- Various treated paper properties and characteristics
- Key process variables
- Lamination principles
- Non-routine operational and product quality problems which require action to be taken
- Occupational health and safety and environmental standards
- Relevant quality management system procedures and work instructions.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information	•		
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Refine fibre FPI WPP 450 A

Description

This unit describes the competency required to refine fibre in a defibrator which is of continuous operating type using refiner discs appropriate to production requirements. This unit also describes the competency required to control and monitor the addition of additives.

1 Start up and shut down defibrator system

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Machine start-up checks are carried out to enterprise standard procedures.
3) Chips are assessed and appropriate system set-up determined.
4) Defibrator system is started following enterprise standard procedures.
5) Machines and feed systems are adjusted to produce fibre size to match enterprise requirements.
6) Availability of sufficient bins to meet job requirements is ensured.
7) Defibrator system is shut down following enterprise standard procedures.
8) Problems with defibrator system are identified and rectified, where possible, or referred to supervisor or maintenance personnel and other operators to maintain and ensure efficient workflow and co-ordination as well as personnel co-operation
9) Communication with supervisor and other workers is maintained to ensure efficient workflow, co-ordination and personnel co-operation.

2 Produce fibre

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Equipment is operated to produce fibre in accordance with enterprise procedures and manufacturer's instructions.
3) Checks are regularly made to ensure fibre conforms to enterprise requirements and necessary adjustments made.
4) Chip flow and pulp outfeed are monitored to ensure optimal production rate.
5) Blockages are regularly cleared using enterprise standard procedures.
6) Output is directed to storage bins in accordance with standard using and fill levels.
7) Faults requiring emergency shut-down are detected and appropriate action taken.
8) Equipment faults are reported to supervisor or maintenance personnel promptly and fully.
9) Cleaning procedures which prevent debris build up are regularly carried out in accordance with enterprise requirements.
10) Production records are maintained in accordance with enterprise standard procedures.
11) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Preparation and addition of additives

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Type and quantity of mixes to be prepared are determined from scheduled requirements, other production area orders and supervisor's instructions.
3) Additives are handled in accordance with enterprise requirements, supervisor's instructions and material safety data sheets.
4) Ancillary equipment used for addition of ingredients is operated in accordance with enterprise and manufacturer's procedures.
5) Mix requirements are determined from enterprise specifications.
6) Pre-start checks are completed where appropriate and blender is started to enterprise standard procedures.
7) Glue, additive and chip/fibre levels are regularly monitored.
8) Samples of mix are regularly taken for testing according to enterprise standard procedures.
9) Additive infeed systems are kept free of blockages.
10) System leakages and other problems are corrected or reported to relevant personnel.
11) Systems and components are flushed when required in accordance with enterprise standard procedures.
12) Blender system is completely shut down where appropriate, according to enterprise standard procedures.
13) Production and quality records for mixed batch are completed in accordance to enterprise standard procedures.
14) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Occupational health and safety and environmental requirements including housekeeping, incident reporting, manual handling, protective clothing, elimination of hazards, machine isolation, machine guarding and enterprise safety and environmental policies
- Additives to fibre include: resin (various types and grades), wax, hardeners, scavenger, dye
- Chip assessment covers species, size moisture content and contamination
- Refining system parts to be monitored may include filters, filtrate, white water, stock level, fibre consistency, feed level, steam flow, raw water, noise, metal detectors and power consumption
- Mixes will cover the range of types, recipes and mixing cycles used by the enterprise where appropriate
- Blending equipment used is:- mixer with manually controlled feed from ingredient storage, mixer with pre-programmed mix quantities and cycles, transfer systems
- Blender may be started both manually or automatically according to manufacturer's instructions.

Evidence Guide

Underpinning Skills

- Set up and shut down refining operating system
- Assess quality of chips
- Maintain refining and mixing conditions with minimal waste product or lost processing time
- Prepare mixes to required specifications
- Maintain a clean and contamination-free mixing area
- Monitor additive feed rate and fibre quality and adjust accordingly
- Maintain records
  - ◊ check any triggered alarms, confirm problem and take corrective action
  - ◊ conduct routine checks of ancillary equipment
  - ◊ identify and clean filters, valves or system blockages
- Communicate effectively with others in associated production areas.

Underpinning Knowledge

- Refining and resin/wax addition process and problems and actions required
- Establishing mix requirements
- Requirements for transferring mixes to storage or production areas.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques	•		
Solving problems			
Using technology		•	

Sharpen and align blades and knives FPI WPP 501 A

Description

Includes both lead and non-lead based babbitt materials and a range of babbitting processes.

1 Determine condition of cutting edge and knife holders

1) Cutting performance of knife is assessed to determine requirement for sharpening.
2) Required geometry of cutting edge for job is determined.
3) Cutting edge is examined to determine extent of sharpening required.
4) Arrangements for knives identified as requiring machine sharpening/reconditioning are made to enterprise procedures.
5) Knife holders are cleaned to enterprise standards.
6) Knife holder is assessed for condition, and defects corrected or reported to maintenance in accordance with enterprise standards.
7) Hazardous conditions on equipment, hand tools and knives are identified and managed to manufacturer's and enterprise requirements.

2 Assemble/disassemble knives/knife holders

1) Knife assembly is separated to enterprise standards.
2) Jig setting is determined.
3) Knife assembly is reassembled to enterprise standard.

3 Prepare knife/blade

1) Blade/knife is cleaned of mill build up and babbitts, according to organisation standard procedure.
2) Blade/knife is inspected to detect any defects which will not be removed through grinding.
3) Defective blade/knife is put aside and reported to organisation procedures.
4) Replacement blade/knife is selected to suit equipment and any manufacturer's instructions for a matched set of blades/knives.

4 Set up blade/knife in grinder

1) Required cutting geometry for the blade/knife is determined from manufacturer's instructions, from organisation information, or from knowledge of timber cutting processes.
2) Suitable attachments for holding the knife/blade in the grinder at the required angles are selected.
3) Grinder is set up in suitable arrangement to efficiently complete the grinding.
4) Grinding wheel is examined and dressed as required.

5 Grind knife/blade

1) Eye protection is worn to organisation requirements.
2) Grinding wheel speed and feeds are selected to suit wheel and blade/knife.
3) Wheel is fed across cutting edge and into cutting edge to obtain clean cutting edge meeting geometric requirements without defects and burns.
4) Coolant is applied to manufacturer's recommendations.
5) Blade/knife is inspected after removal from grinder and cleaning to ensure required sharpening has been completed.
6) Burrs left after grinding are honed to obtain sharp cutting edge.

6 Recondition babbitts

1) Requirement for babbitts to be reconditioned is determined in accordance with organisational guidelines.
2) Safety equipment and clothing is used to organisation requirements.
3) Babbitt material is heated to required pouring temperature.
4) Blade/knife is set up in pouring jig to required dimensions.
5) Babbitt is poured without excessive material wastage.
6) Cavities and shrinkage are avoided in the babbitts through correct pouring procedure.
7) Assembly is allowed to cool in safe location.
8) Excess material is removed to allow the blade/knife to locate correctly in mill equipment.

7 Adjust set screws

1) Requirements for set screws to be adjusted is determined in accordance with organisational guidelines .
2) Bent and broken screws are replaced.
3) Set screws are adjusted to position knife-blade at correct depth.
4) Set screws are locked into position to avoid knife/blade movement.

Range of Variables

- Lead and non-lead based babbitt materials
- Range of blades/knives used in organisation/local industry
- Use of manual feed and automatic feed grinders
- Babbitt removal methods
- Finish required on babbitts for different equipment and finishing methods.

Evidence Guide

Underpinning Skills

- Prepare and inspect blades/knives
- Sharpen blades/knives using one or more grinder
- Babbitt using one material for various blades/knives
- Finish babbitts to suit tolerances
- Replace, adjust and lock set screws.

Underpinning Knowledge

- Occupational health and safety legislation and organisation safety requirements applying to grinding and babbitting processes
- Grinding set-ups for blades/knives
- Alternative approaches to use of manual feed and automatic feed grinders
- Alternative babbitting materials/processes.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Sharpen and align blades and knives FPI WPP 501 A

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities			
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving problems			
Using technology	•		

Test product in a laboratory FPI WPP 502 A

Description

Includes a variety of test types across the range of materials and products manufactured by the organisation.

1 Collect and prepare samples

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Sample of materials needed for testing are collected.
3) Samples are prepared in accordance with test requirements.
4) Communication with production personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

2 Analyse returned products

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Products returned due to customer complaints are analysed and nature of complaint clarified.
3) Product problem is verified.
4) Samples are prepared from returned material, where appropriate, in accordance with test requirements.
5) Manufacturing dates/times and batches related to returned product are established, wherever possible, from production/quality records.
6) Related test data is established and reviewed.
7) Communication with customers and production personnel is maintained to ensure efficient workflow co-ordination and personnel co-operation.

3 Test samples

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Tests are conducted to organisation and externally controlled standards.
3) Unusual or unexpected results are verified by further sampling and/or testing.
4) Quality records are maintained in accordance with organisation and external authority requirements.

4 Evaluate and respond to test results

1) Occupational health and safety and environmental regulations, policies and precautions are followed.
2) Results of tests are evaluated for implication and impact on production processes.
3) Action is taken based on results of tests in accordance with organisation standard procedures.
4) Feedback of test results is provided to production personnel to facilitate process control.
5) Results are provided to external authorities as required by registration systems.
6) Communication with supervisor and other workers is maintained to ensure efficient workflow co-ordination and personnel co-operation.

Range of Variables

- Tests may involve full range of material and products manufactured by the organisation
- Test types may include the use of a range of hand tools, mechanical gauges and electronic gauges
- Occupational health and safety requirements will cover both laboratory and all areas in which sample collection is required and will include use of protective clothing, manual handling, machine guarding, use of hazardous materials and organisation safety policy.

Evidence Guide

Underpinning Knowledge

- Organisation quality assurance system
- Specified quality requirements for material
- Testing procedures
- Requirements of external authorities.

Underpinning Skills

- Use testing equipment appropriately
- Evaluate results
- Follow traceability systems within the organisation.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information		•	
Communicating ideas and information	•		
Planning and organising activities		•	
Working with others in teams			
Using mathematical ideas and techniques		•	
Solving problems	•		
Using technology	•		

Description

Includes both wheeled and tracked dozers.

1 Perform routine checks on equipment

1) Vehicle is cleaned to ensure safe and tidy operation in accordance with organisation procedures.
2) Cab interior is cleaned to ensure maximum visibility and freedom of movement.
3) Regular checks are made of equipment components according to the manufacturer's specifications and organisation procedures.
4) Fluid levels and air pressures are maintained to manufacturer's specification.
5) Damaged components are identified and reported according to organisation procedures.

2 Select equipment and prepare to shift material

1) Equipment and/or attachments suitable for the material are selected.
2) Where appropriate, attachments are fitted to the equipment or existing attachments are inspected to ensure correct attachment.
3) External check is made of equipment and attachments in accordance with manufacturer's instructions or equivalent.
4) Job accessories are checked prior to operation to ensure they are available and serviceable.
5) Vehicle operational area is inspected to identify hazards and remove them or plan to control them.
6) Nearby personnel are advised of impending vehicle operation as appropriate.
7) Communication signals to be used are confirmed with other personnel.
8) Engine is started in accordance with manufacturer's guidelines and organisation start-up procedures.
9) Instruments and gauges are monitored to ensure vehicle operation is safe according to manufacturer's specifications and safety rules.
10) Checks are made of safety equipment and controls to ensure they are operational according to organisation and manufacturer's documentation and safety rules.

3 Shut down and secure equipment

1) Vehicle is parked to avoid site and equipment hazards.
2) Shut-down procedure is completed to manufacturer's requirements and organisation procedures.
3) Post-operational checks are completed to manufacturer's requirements.
4) Equipment faults are reported to supervisor.

4 Identify and engage material

1) Material location is identified from load sheet/instructions in accordance with organisation procedures.
2) Weight of material is assessed to ensure compliance with equipment load plate specifications.
3) Small quantities of scattered material are combined using dozer.
4) Spreading and loss or contamination of material over transport route is assessed.
5) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel.
6) Vehicle speeds and engine power are managed to safe operating limits and manufacturer's specification.
7) Communications with loading personnel are maintained according to agreed signals.
8) Materials are engaged so that stability of material and vehicle is maintained.
9) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
10) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported according to organisation procedures.

5 Shift material to unloading point

1) Safe operating procedures are followed according to site regulations and in co-operation with other personnel.
2) Route is planned considering site conditions, traffic, load restrictions and manoeuvring space to ensure safe and efficient transport of material.
3) Vehicle is steered, manoeuvred and positioned to ensure efficient and safe operation in co-operation with other personnel.
4) Vehicle speeds and engine power is managed to safe operating limits and manufacturer's specification.
5) Communications with yard and other personnel are maintained according to agreed signals and organisation procedures.
6) Route and speeds are selected so that loss or contamination of material is minimised.
7) Vehicle is constantly monitored using gauges, warning devices and observation of vehicle performance to determine operating faults.
8) Equipment faults creating hazardous operations are identified, operations suspended and the fault reported to organisation procedures.
9) Minor emergency maintenance is completed where the vehicle is away from repair facilities.

6 Place material in required location(s)

1) Communications with yard personnel are maintained according to agreed signals.
2) Materials are placed in stable temporary position where required.
3) Materials are placed to ensure stability of material and avoid site hazards.
4) Location records are updated as required to organisation procedures.

Range of Variables

- Equipment will include one of the following: wheeled dozer, tracked dozer
- Equipment attachments include box for wood chip spreading
- Operations include the following: mill and roads, even and irregular ground, co-ordination with other personnel at point of engagement, shifting and placement
- Job accessories may include safety clothing and equipment, vehicle manuals, vehicle tools, job and vehicle records and writing equipment, first aid kit and breakdown gear.

Evidence Guide

Underpinning Skills

- move the range of material within yard
- operate equipment, including:
  - ◊ appropriate and controlled movements to manufacturer's specifications and standard operating procedures
  - ◊ no injury occurs to personnel
  - ◊ no damage occurs to property, equipment or material
  - ◊ efficient utilisation of available area.

Underpinning Knowledge

- Manufacturer's and organisation requirements on equipment operation for yard and road operations
- Mill, yard and road hazards.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	Level 2	Level 3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Shift material with wheeled lifting equipment - advanced FPI WPP 506 A

Description

This unit describes the work required to schedule and co-ordinate load shifting with a range of attachments on both public and private properties.

1 Schedule load shifting

1) Material handling requirements for loads around the site are obtained in order to determine movement frequencies, according to organisation standard procedure.
2) Variations in the material handling requirements are determined from knowledge of site operations and shipments of products.
3) Equipment requirements for various areas of the organisation are assessed.
4) Material handling schedules are altered to maintain organisation production and limit shipment delays.

2 Co-ordinate load shifting

1) Arrangements for handling of loads are made with other personnel to maintain efficient utilisation of load shifting equipment.
2) Safety of yard and production area is maintained through identification of unsafe conditions and acts, and congested areas.
3) Load movement is organised to limit multiple loads being moved at the same time in the same area.
4) Difficult load shifting situations and incidents are resolved safely to organisation procedures.
5) Organisation paperwork relating to log movements and equipment operation is maintained to organisation requirements for site.

3 Perform routine checks and maintenance on equipment

1) Regular checks are made of equipment components according to the manufacturer's specifications and organisation procedures.
2) Worn and damaged components are identified and reported according to organisation procedures.
3) Worn and damaged components are assessed to determine if continued operation is unsafe.

4 Coach others in load shifting

1) Proper use and checking of wheeled lifting equipment are demonstrated to other employees where required.
2) Skills required to shift particular loads are explained and demonstrated. Arrangements for co-ordinating load shifting are explained.

FPI WPP 506 A Shift material with wheeled lifting equipment - advanced

Range of Variables

- Wheeled lifting equipment and attachments in organisation
- Movement of partly processed and finished products around site and to/from other sites across private and public properties
- Operation of multiple items of equipment simultaneously by more than one person
- Other personnel consulted include: site operation personnel including those involved in material handling, transport personnel including other organisations.

Evidence Guide

Underpinning Skills

- Schedule and co-ordinate movement of loads in conjunction with others
- Demonstrate and explain to other users of the equipment the use and checking of wheeled lifting equipment, particularly operations requiring advanced skills
- Maintain and co-ordinate the required paperwork.

Underpinning Knowledge

- Site and associated transport operations
- Wheeled lifting equipment in the organisation and associated sites
- Efficient scheduling and co-ordination of movement of loads
- The use and checking of wheeled lifting equipment, particularly operations requiring advanced skills.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level 1	2	3
Collecting, analysing and organising information			
Communicating ideas and information			
Planning and organising activities	•		
Working with others in teams			
Using mathematical ideas and techniques			
Solving problems			
Using technology	•		

Shift logs with wheeled lifting equipment - advanced FPI WPP 507 A

Description

This unit describes the work required to schedule and co-ordinate log movement with a range of attachments on both public and private properties.

1 Schedule load shifting

1) Material handling requirements for logs from forestry operations, in the yard and to the organisation are obtained to determine movement frequencies.
2) Variations in the material handling requirements are determined from knowledge of organisation operations, forestry operations and deliveries.
3) Equipment requirements far log handling are assessed.
4) Material handling schedules are altered to maintain organisation production and handle log deliveries.

2 Co-ordinate load shifting

1) Arrangements for handling of logs are made with other personnel to maintain efficient utilisation of load shifting equipment.
2) Safety of yard and production area is maintained through identification of unsafe conditions and acts, and congested areas.
3) Log movement is organised to limit multiple loads being moved at the same time in the same area.
4) Difficult load shifting situations and incidents are resolved safely to organisation procedures.
5) Organisation paperwork relating to log movements and equipment operation is maintained to organisation requirements for site

3 Perform routine checks and maintenance on equipment

1) Regular checks are made of equipment components according to the manufacturer's specifications and organisation procedures.
2) Worn and damaged components are identified and reported according to organisation procedures.
3) Worn and damaged components are assessed to determine if continued operation is unsafe.

4 Coach others in load shifting

1) Proper use and checking of wheeled lifting equipment on logs is demonstrated to other employees where required.
2) Skills required to shift particular loads are explained and demonstrated.
3) Arrangements for co-ordinating log movements are explained.

Range of Variables

- Wheeled lifting equipment and attachments in organisation
- Movement of logs around organisation and to/from other sites across private and public properties
- Operation of multiple items of equipment simultaneously by more than one person
- Variations in material handling include: changes in production volumes and product mix, changes in delivery arrangements, scheduling for equipment maintenance, breakdowns and other incidents
- Other personnel consulted may include: site operation personnel including those involved in material handling, transport personnel including other organisations.

Evidence Guide

Underpinning Skills

- Efficiently schedule and co-ordinate the movement of logs in conjunction with others
- Demonstrate and explain to other users of the equipment the use and checking of wheeled lifting equipment, particularly operations requiring advanced skills
- Maintain and co-ordinate appropriate documentation.

Underpinning Knowledge

- Site, forestry and associated transport operations
- Wheeled lifting equipment in the organisation and associated sites
- Scheduling and co-ordination techniques for the movement of logs
- The use and checking of wheeled lifting equipment, particularly operations requiring advanced skills.

Assessment Context

Competency should be demonstrated in an actual workplace or in a situation that reproduces workplace conditions.

Key Competencies and Application to Standards

Key Competency	Level		
	1	2	3
Collecting, analysing and organising information	•		
Communicating ideas and information		•	
Planning and organising activities	•		
Working with others in teams		•	
Using mathematical ideas and techniques			
Solving problems			
Using technology		•	